Attachment F

MidAmerican Energy Company
Electric Utility
Customer Satisfaction Survey

2000

Primary research conducted:
October 24 to December 6, 2000

Commissioned by:
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Section I: Synopsis of the Executive Summaries

In 1998, under Illinois Administrative Code 411, "Electric Reliability," the Illinois Commerce Commission (ICC) adopted a customer survey requirement. The ICC initiated a rulemaking to design and approve a single customer survey, addressing both the residential and non-residential sectors, applicable to each Illinois Jurisdictional Entity. This Synopsis provides an overview of the results of the year 2000 survey effort for MidAmerican Energy Company. The survey, which involved 600 residential customer and 373 non-residential customers, addressed the following topics as required by ICC rules: overall satisfaction; reliability performance; customer service performance; understanding of services; tree trimming performance; billing; and demographics/firmographics. The surveys were completed between October 24, 2000 and December 6, 2000. The residential portion has an overall confidence interval of ±4.0 percent at the 95 percent confidence level while the non-residential portion has an overall confidence interval of ±4.9 percent at the 95 percent confidence level. The survey consisted mostly of three question types: rating questions; yes/no questions; and categorical questions. Key findings by sector and question type are summarized below.

Residential

Rating Questions. All rating questions use a zero to 10 scale where zero means the utility is doing a poor job and 10 means the utility is doing an excellent job. Overall research findings, ordered from highest to lowest mean rating, for questions asked of <u>all</u> residential survey respondents are outlined below:

- Providing reliable electric service (mean = 8.38)
- Providing electric service overall (mean = 8.36)
- Keeping the electric system in good working order (mean = 8.23)
- Restoring electric service at your residence when outages occur (mean = 7.86)
- Minimizing the number of power interruptions lasting LESS than one minute (mean = 7.80)
- Minimizing the number of power outages lasting MORE than one minute (mean = 7.60)
- Being accessible during an outage (mean = 7.44)

- Providing information about extended outages (mean = 6.88)
- Keeping electric rates reasonable (mean = 6.50)

Yes/No Questions. Overall research findings, ordered from highest to lowest percentage of "yes" responses, for questions asked of all residential survey respondents are outlined below:

- Respondents who receive a bill from the utility at this location (percent "yes" = 97.5 percent)
- Respondents who tried to reach the utility by phone in the past 12 months (percent "yes" = 49.8 percent)
- Respondents who experienced any loss or damage due to electrical outages or other electrical problems (percent "yes" = 6.0 percent)

Categorical Questions. While a number of categorical questions are included in the survey, those addressing familiarity with various utility services (ordered from most familiar to least familiar) are outlined below:

- Being available 24 hours a day, seven days a week by phone in the event of a power outage (percent "very familiar" = 70.0 percent)
- Having a toll-free number to report power outages (percent "very familiar" = 61.5 percent)
- Offering different bill payment options to qualified customers (percent "very familiar" = 60.6 percent)
- Trimming trees to reduce the occurrence of power outages (percent "very familiar" = 53.8 percent)
- Reporting information about extended power outages to the news media to keep customers informed (percent "very familiar" = 38.1 percent)

Non-Residential

Rating Questions. All rating questions use a zero to 10 scale where zero means the utility is doing a poor job and 10 means the utility is doing an excellent job. Overall research findings, ordered from highest to lowest mean rating, for questions asked of all non-residential survey respondents are outlined below:

- Providing electric service overall (mean = 8.62)
- Providing reliable electric service (mean = 8.57)
- Keeping the electric system in good working order (mean = 8.36)

- Restoring electric service at your business when outages occur (mean = 8.04)
- Minimizing the number of power interruptions lasting LESS than one minute (mean = 7.99)
- Minimizing the number of power outages lasting MORE than one minute (mean = 7.89)
- Being accessible during an outage (mean = 7.59)
- Providing information about extended outages (mean = 6.89)
- Keeping electric rates reasonable (mean = 6.59)

Yes/No Questions. Overall research findings, ordered from highest to lowest percentage of "yes" responses, for questions asked of all non-residential survey respondents are outlined below:

- Respondents who receive a bill from the utility at this location (percent "yes" = 85.7 percent)
- Respondents who tried to reach the utility by phone in the past 12 months (percent "yes" = 55.4 percent)
- Respondents who experienced any loss or damage due to electrical outages or other electrical problems (percent "yes" = 17.6 percent)

Categorical Questions. While a number of categorical questions are included in the survey, those addressing familiarity with various utility services (ordered from most familiar to least familiar) are outlined below:

- Being available 24 hours a day, seven days a week by phone in the event of a power outage (percent "very familiar" = 77.9 percent)
- Having a toll-free number to report power outages (percent "very familiar" = 72.0 percent)
- Trimming trees to reduce the occurrence of power outages (percent "very familiar" = 65.0 percent)
- Offering different bill payment options to qualified customers (percent "very familiar" = 53.6 percent)
- Reporting information about extended power outages to the news media to keep customers informed (percent "very familiar" = 44.6 percent)

Section II: Background

In 1997, the State of Illinois passed legislation on electric industry restructuring. Provisions were made to monitor electric service reliability, both operationally and via customer perception. In 1998, under the Illinois Administrative Code 411, "Electric Reliability," the Illinois Commerce Commission (ICC) adopted a customer survey requirement. The ICC initiated a rulemaking to design and approve a single customer survey applicable to each Illinois Jurisdictional Entity. The Illinois Jurisdictional Entities include AmerenCIPS, AmerenUE, Central Illinois Light Company, Commonwealth Edison, Illinois Power Company, MidAmerican Energy Company, and Mount Carmel Public Utility Company.

The Illinois Jurisdictional Entities joined forces and, through a competitive bidding process, selected Opinion Dynamics Corporation (ODC) to implement the study. ODC is a full-service, national market and public opinion research firm based in Cambridge, Massachusetts, with a satellite office in Madison, Wisconsin. ODC was founded in November 1987; today, they have approximately 125 employees, 35 of whom are full-time research staff. ODC maintains their own computer-assisted telephone interviewing (CATI) facility. This direct ownership allows for the most exacting, hands-on quality control standards available for on-going CATI interviewing.

Research was conducted to address both the residential and non-residential sectors. Over time (beginning in 2001) the research will enable the individual Illinois Jurisdictional Entities to compare and contrast their survey results to past survey efforts. The research also provided the ICC with basic knowledge about consumer understanding of electric delivery services and pricing, consumer satisfaction with electric delivery services and reliability, and changes in consumer understanding and satisfaction.

Section III: Objectives

The ICC set a yearly requirement, starting in 2000, for each Illinois Jurisdictional Entity. The requirement reads as follows:

> *"Each jurisdictional entity is required to submit to the Commission an annual report that includes the results of a customer satisfaction survey. The customer satisfaction survey covers reliability of electric service, customer service, and customer understanding of the jurisdictional entity's services and prices."*[1]

The survey addressed the following topics as required by the ICC rules: overall satisfaction; reliability performance; customer service performance; understanding of services; tree trimming performance; billing; and demographics/firmographics.

The research objectives for the surveys were to provide the ICC with basic knowledge of MidAmerican Energy Company's (MidAmerican) residential and non-residential customers, particularly:

- ?? Satisfaction with overall electric service, including reliability and rates;
- ?? Recent outage experiences;
- ?? Opinions of utility services including restoration of power, keeping the public informed, and being accessible;
- ?? Familiarity with various utility services;
- ?? Opinions of utility tree trimming efforts;
- ?? Receipt, handling, and ease of use of MidAmerican's billing statements; and
- ?? Demographic (residential) and firmographic (non-residential) information.

[1] Illinois Administrative Code 411, "Electric Reliability," Section 411.300, Purpose of Subpart D.

Section IV: Methodology

This research project consists of 600 residential telephone surveys and 373 non-residential telephone surveys with MidAmerican's electric utility customers. The surveys, designed to address the research objectives outlined in Section III, were completed between October 24, 2000 and December 6, 2000. The survey and survey procedures for MidAmerican were identical to those used for the other Illinois Jurisdictional Entities.

ODC Interviewers. Interviewers were extensively trained to conduct the interviews effectively and efficiently while minimizing interviewer bias. The same group of trained interviewers was used throughout the study to ensure consistency in conducting the interviews.

Survey Respondents. For the residential population, the survey respondent was the person in the household who is most familiar with the household's electric service. For non-residential customers, the survey respondent was the person who is most familiar with electric service in the organization. Survey respondents were not offered any type of incentive to encourage them to participate.

Telephone Procedures. Before eliminating a customer and randomly selecting a replacement, ODC completed the following steps: 1) made a minimum of five telephone calls to each randomly selected customer; 2) attempted to reach the randomly selected customer at different times of the day; 3) called the customer back at the specified time if the customer answered the telephone but asked to respond to the survey at a different time; and 4) called back at a time the target respondent was expected to be at home or the office if the telephone was answered by anyone but the target respondent. Interviewers were not allowed to volunteer the name of MidAmerican or any other electricity provider during the course of the survey interview.

Survey Pre-Test. A pre-test of the survey instrument was completed with a total of 30 randomly selected residential respondents and 30 randomly selected non-residential respondents. Both residential and non-residential pre-test respondents were selected to include customers of each of the seven participating Illinois Jurisdictional Entities: AmerenCIPS, AmerenUE, Central Illinois Light Company, Commonwealth Edison, Illinois Power Company, MidAmerican Energy

Company, and Mount Carmel Public Utility Company. The ODC research team closely monitored the pre-test effort and found survey respondents able to both understand and respond to each of the individual survey questions. As a result, no wording changes were proposed.

Sampling. MidAmerican staff provided ODC with 37 zip codes representing the service territory. Based on these 37 zip codes, ODC purchased a random digit dial (RDD) sample. The 3,700 records included in the RDD file represents a random sample of MidAmerican's residential accounts. MidAmerican provided ODC with a Dun & Bradstreet file containing 5,859 records, the entire non-residential customer population.

Table 1 provides a complete breakdown of the sample used as part of this study. The residential portion of this study has an overall confidence interval of ±4.0 percent at the 95 percent confidence level while the non-residential portion has an overall confidence interval of ±4.9 percent at the 95 percent confidence level.

Independent Reviewer Statement. ODC staff have reviewed the procedures used by MidAmerican to select both their residential and non-residential samples. We believe the procedures used resulted in randomly drawn samples which are representative of the residential and non-residential customer population. We recommend that the same procedures be followed in the future for two important reasons. First, high response rates were achieved through this sampling procedure (see Table 1). Second, consistent procedures will preserve the research team's ability to compare and contrast future results with these year 2000 results.

Table 1: Survey Response Rate

	Residential Number of Sample Points	Percent of Residential Contacts	Non-Residential Number of Sample Points	Percent of Non-Residential Contacts
Starting Sample	3,700		5,859	
Sample Points Used	2,384		925	
Out-of-Sample	1,122		273	
Disconnected Number	312		59	
Business Number	174		-	
Residential Number	-		39	
Computer Tone	104		10	
Language Problem	25		2	
Duplicate/Wrong Phone Number	15		53	
Privacy Line	13		-	
Don't Know Utility Name	64		43	
Mismatched Utility	54		6	
Wrong Address	0		-	
Work for Ad Agency, Research Firm, or Gas, Electric, or Phone Company	20		-	
No Answer/Answering Machine/Busy	341		61	
Prospective Respondents Contacted	1,262		652	
Initial Refusal	530	42.0%	191	29.3%
Contacted/Callbacks Scheduled	102	8.1%	79	12.1%
Mid-Interview Terminates	30	2.4%	9	1.4%
Survey Completions	600	**47.5%**	373	**57.2%**

Section V: Residential Executive Summary

This section of the report is divided into seven major subsections that present the findings of the 600 telephone surveys conducted with MidAmerican's residential customers. The subsections are in the order they appear in the survey instrument (see Appendix A).

?? Subsection "a" provides ratings of the utility's overall electric service, their ability to provide reliable service, and their performance on keeping electric rates reasonable.

?? Subsection "b" discusses MidAmerican's reliability in detail including the length and timing of recent outages.

?? Subsection "c" presents residential customer opinions of utility services including restoration of power, keeping the public informed, and being accessible.

?? Subsection "d" discusses residential respondents' familiarity with various utility services.

?? Subsection "e" presents customer opinions of utility tree trimming efforts.

?? Subsection "f" discusses the receipt, handling, and ease of use of MidAmerican's billing statements.

?? Finally, subsection "g" presents respondent demographic information including age, home ownership status, income, people living in household, and gender.

All survey questions asked of residential respondents are discussed within this Residential Executive Summary. There are three types of questions contained in the survey: rating questions, yes/no questions, and categorical questions. In each of the seven subsections which follow, overall question results are either discussed or graphically presented and then significant findings for those questions are outlined.

Rating Questions. All rating questions use a zero to 10 scale, where zero means the utility is doing a poor job and 10 means the utility is doing an excellent job. As required in Illinois Administrative Code 411.350, all rating questions underwent two broad statistical tests.

?? *Pearson Product Moment Correlation Coefficients* – Significant relationships between a particular rating question and all other rating questions were determined through the use of the Pearson Product Moment Correlation Coefficient. Only those rating question combinations that resulted in a correlation coefficient with an absolute value of 0.5 or higher are discussed within this Executive Summary.

?? *Chi-Square* – Significant relationships between a particular rating question and all yes/no, categorical, and demographic questions were determined through the use of the Chi-Square test. Only those Chi-Squares with a significance of 0.05 or less are discussed within this Executive Summary. Upon finding a significant Chi-Square, the research team utilized a standard independent t-test for means in order to provide further insight into the nature or direction of the relationship between a rating question and a yes/no, categorical, or demographic question. When reviewing the t-test results, the research team looked for a "general pattern of response" rather than statistical significance within every dimension of the cross-tabulation table.

Yes/No and Categorical Questions. As required in Illinois Administrative Code 411.350, all yes/no and categorical questions underwent a single statistical test.

?? *Chi-Square* – Significant relationships between a particular yes/no or categorical question and all demographic questions were determined through the use of the Chi-Square test. Only those Chi-Squares with a significance of 0.05 or less are discussed within this Executive Summary. Upon finding a significant Chi-Square, the research team utilized a standard independent z-test for percentages in order to provide further insight into the nature or direction of the relationship between the yes/no or categorical question and a demographic question. When reviewing the z-test results, the research team looked for a "general pattern of response" rather than statistical significance within every dimension of the cross-tabulation table.

An explanation of the tables contained in the appendices (Chi-Square tables, ranking tables, and t-test/z-test tables) and the statistical tests used in this study (correlation coefficients, Chi-Square tests, t-tests, and z-tests) are located in Appendix B. Correlation coefficients of all residential rating questions by all other rating questions are located in Appendix C. Required cross tabulations, statistical ranking tables, and t-test/z-test tables for all residential survey questions are available in electronic format (file name: Appendix D_MidAm Res Tables 2000.doc) while a chart of question combinations with significant Chi-Squares is located in Appendix D.

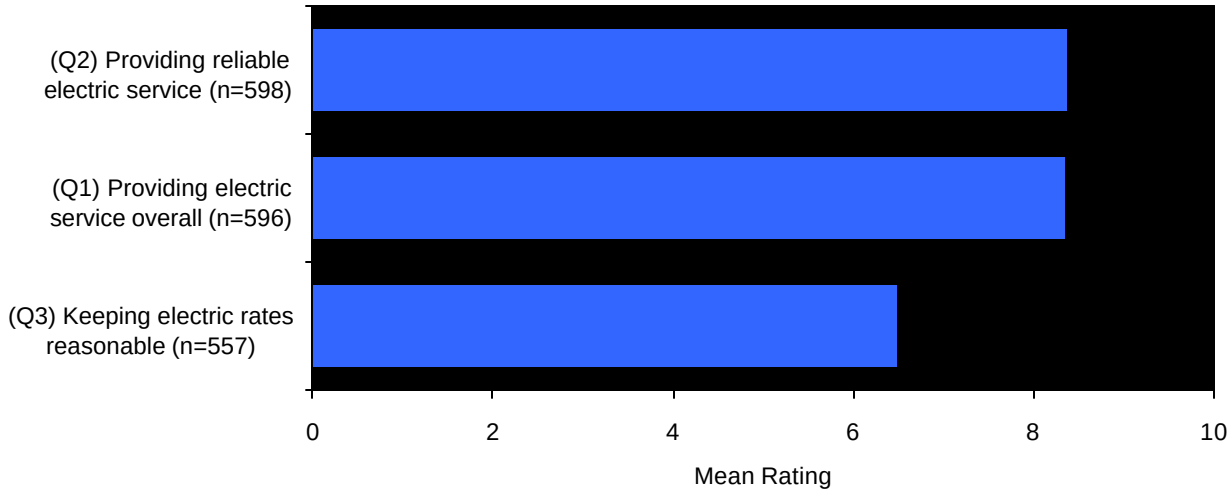
a. Overall Satisfaction

We asked survey respondents to rate the job MidAmerican does on providing electric service overall. In addition, we asked respondents to rate the reliability of electric service they receive and to rate how well MidAmerican keeps their electric rates reasonable. Key findings are summarized below.

Overall Findings: Q1, Q2, and Q3

?? **On average, respondents give MidAmerican a rating of 8.38 for providing reliable electric service.** As illustrated in Figure 1, respondents give the utility an average rating of 8.36 for providing electric service overall while they give the utility an average rating of 6.50 for keeping electric rates reasonable.

Figure 1: Mean Ratings for Overall Satisfaction



Significant Chi-Squares

?? **Providing electric service overall (Q1) is rated higher by respondents who:**

- ?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
- ?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
- ?? Said the length of their last power outage lasting MORE than one minute in the past 12 months lasted less than 12 hours (Q10);

- ?? Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13); and
- ?? Report they have NOT tried to reach the utility by phone within the past 12 months (Q18).

?? **Providing reliable electric service (Q2) is rated higher by respondents who:**

- ?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
- ?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
- ?? Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);
- ?? Said they are VERY FAMILIAR with the utility offering different bill payment options to qualified customers (Q25); and
- ?? Are female (Q40).

?? **Keeping electric rates reasonable (Q3) is rated higher by respondents who:**

- ?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
- ?? Said the length of their last power outage lasting MORE than one minute in the past 12 months was less than one hour (Q10);
- ?? Said the length in hours of the SHORTEST outage lasting more than one minute was less than two hours (Q11);
- ?? Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13); and
- ?? Said they are VERY FAMILIAR with the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23).

?? **In addition, ratings for keeping electric rates reasonable (Q3) vary significantly by:**

- ?? The method used to complete most recent call to the utility (Q20). However, no clear pattern of response can be determined from the data;
- ?? Respondent age (Q33). However, no clear pattern of response can be determined from the data; and
- ?? Respondent 1999 total pre-tax household income (Q36), however no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

- **Providing electric service overall (Q1) significantly correlates with:**
  - Providing reliable electric service (Q2);
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power interruptions lasting LESS than one minute (Q5); and
  - Restoring electric service at your residence when outages occur (Q15).
- **Providing reliable electric service (Q2) significantly correlates with:**
  - Providing electric service overall (Q1);
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power interruptions lasting LESS than one minute (Q5);
  - Restoring electric service at your residence when outages occur (Q15); and
  - Providing information about extended outages (Q16).

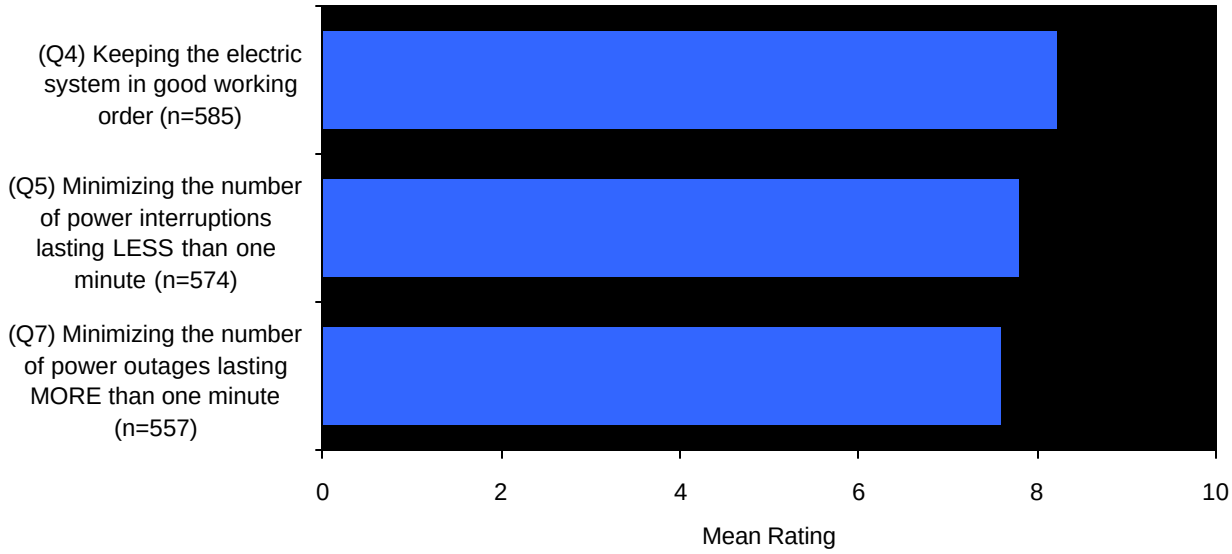
b. Reliability Performance

Respondents were asked to rate MidAmerican's performance on electric reliability. In addition, respondents were asked for the number of power interruptions lasting less than and more than one minute they have experienced in the last 12 months and how long these power interruptions lasted. Key findings are summarized below.

Overall Findings: Q4, Q5, and Q7

- **Respondents give MidAmerican a mean rating of 8.23 for keeping the electric system in good working order.** In addition, respondents give the utility a mean rating of 7.80 for minimizing the number of power interruptions lasting LESS than one minute while they give the utility a mean rating of 7.60 for minimizing the number of power outages lasting MORE than one minute. (see Figure 2)

Figure 2: Mean Ratings for Reliability Performance



Significant Chi-Squares

- **Keeping the electric system in good working order (Q4) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);

- Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);
- Report they have NOT tried to reach the utility by phone within the past 12 months (Q18); and
- Are female (Q40).

- **In addition, ratings for keeping the electric system in good working order (Q4) vary significantly by:**
  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data;
  - The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data;
  - Respondent familiarity with the utility having a toll-free number to report power outages (Q22). However, no clear pattern of response can be determined from the data;
  - Respondent familiarity with the utility offering different bill payment options to qualified customers, such as paying a fixed monthly amount (Q25). However, no clear pattern of response can be determined from the data; and
  - Whether or not the respondent receives a bill from the utility at this location (Q30). However, no clear pattern of response can be determined from the data.

- **Minimizing the number of power interruptions lasting LESS than one minute (Q5) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
  - Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13); and
  - Report they have NOT tried to reach the utility by phone within the past 12 months (Q18).

- **In addition, ratings for minimizing the number of power interruptions lasting LESS than one minute (Q5) vary significantly by:**
  - Respondent awareness of the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23), however no clear pattern of response can be determined from the data.

- **Minimizing the number of power outages lasting MORE than one minute (Q7) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
  - Said the length of their last power outage lasting MORE than one minute in the past 12 months was less than one hour (Q10);
  - Report their LONGEST outage in the past 12 months that lasted more than one minute was one hour or less in length (Q12);
  - Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13); and
  - Report they have NOT tried to reach the utility by phone within the past 12 months (Q18).
- **In addition, ratings for minimizing the number of power outages lasting MORE than one minute (Q7) vary significantly by:**
  - Whether or not the respondent receives a bill from the utility at this location (Q30). However, no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

- **Keeping the electric system, including power lines and equipment, in good working order (Q4) significantly correlates with:**
  - Providing electric service overall (Q1);
  - Providing reliable electric service (Q2);
  - Minimizing the number of power interruptions lasting LESS than one minute (Q5);
  - Minimizing the number of power outages lasting MORE than one minute (Q7);
  - Restoring electric service at your residence when outages occur (Q15);
  - Providing information about extended outages (Q16); and
  - Being accessible during an outage (Q17).
- **Minimizing the number of power interruptions lasting LESS than one minute (Q5) significantly correlates with:**
  - Providing electric service overall (Q1);
  - Providing reliable electric service (Q2);

- Keeping the electric system, including power lines and equipment, in good working order (Q4); and
- Minimizing the number of power outages lasting MORE than one minute (Q7).

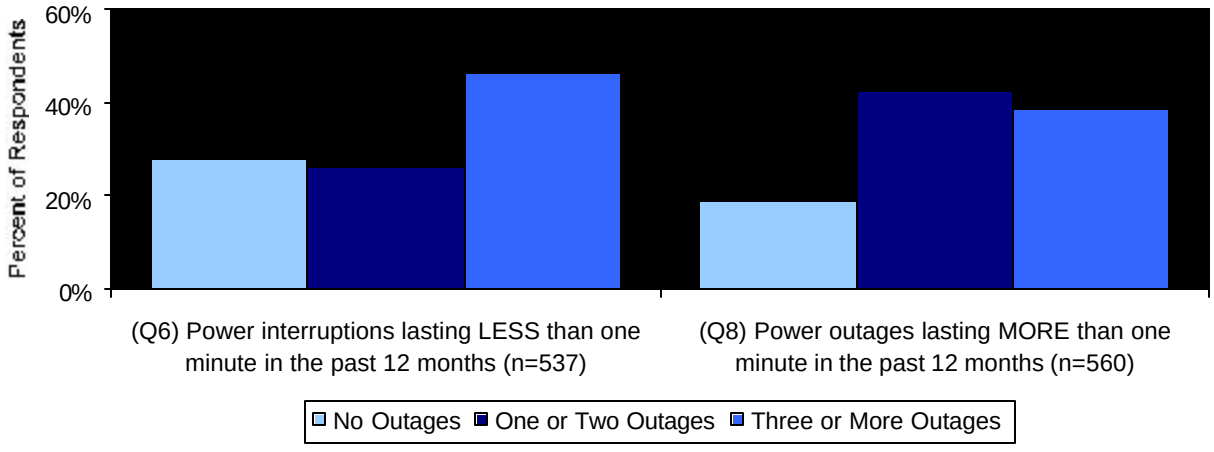
- **Minimizing the number of power outages lasting MORE than one minute (Q7) significantly correlates with:**
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power interruptions lasting LESS than one minute (Q5); and
  - Restoring electric service at your residence when outages occur (Q15).

Overall Findings: Q6 and Q8

- **In the past 12 months, more than one-quarter of respondents (28 percent) said they have experienced no power interruptions lasting LESS than one minute.** Twenty-six percent said they have experienced one or two outages and 46 percent said they have experienced three or more outages. (see Figure 3)

- **In the past 12 months, 19 percent of all respondents said they have experienced no power outages lasting MORE than one minute.** Forty-two percent said they have experienced one or two outages while 39 percent said they have experienced three or more outages. (see Figure 3)

Figure 3: Number of Outages



Significant Chi-Squares

?? **The number of power interruptions lasting LESS than one minute (Q6) reported by respondents varies significantly by:**

?? The age of the respondent (Q33), however, no clear pattern of response can be determined from the data;

?? Ownership status of the respondent's residence (Q34), however no clear pattern of response can be determined from the data; and

?? Respondent 1999 total pre-tax household income (Q36), however no clear pattern of response can be determined from the data.

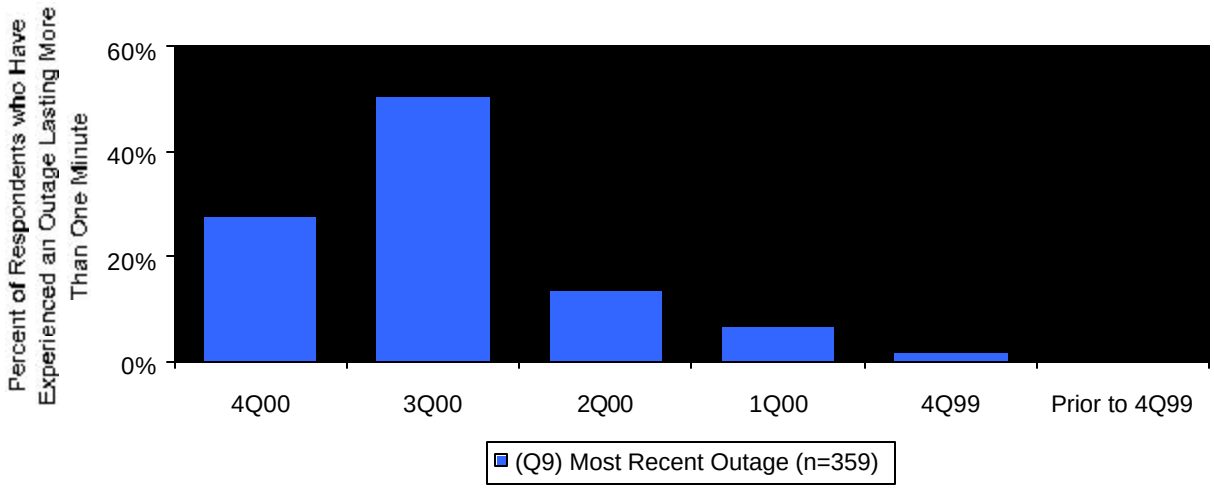
?? **The number of power outages lasting MORE than one minute (Q8) reported by respondents varies significantly by:**

?? Number of people (including the respondent) who live in the respondent's household (Q37), however no clear pattern of response can be determined from the data.

Overall Findings: Q9

?? **Of those respondents who have experienced an outage lasting MORE than one minute in the last 12 months, one-half said the most recent outage occurred during the third quarter of 2000.** See Figure 4 below for a complete breakdown of when respondents said their last outage lasting MORE than one minute occurred.

Figure 4: Most Recent Outage



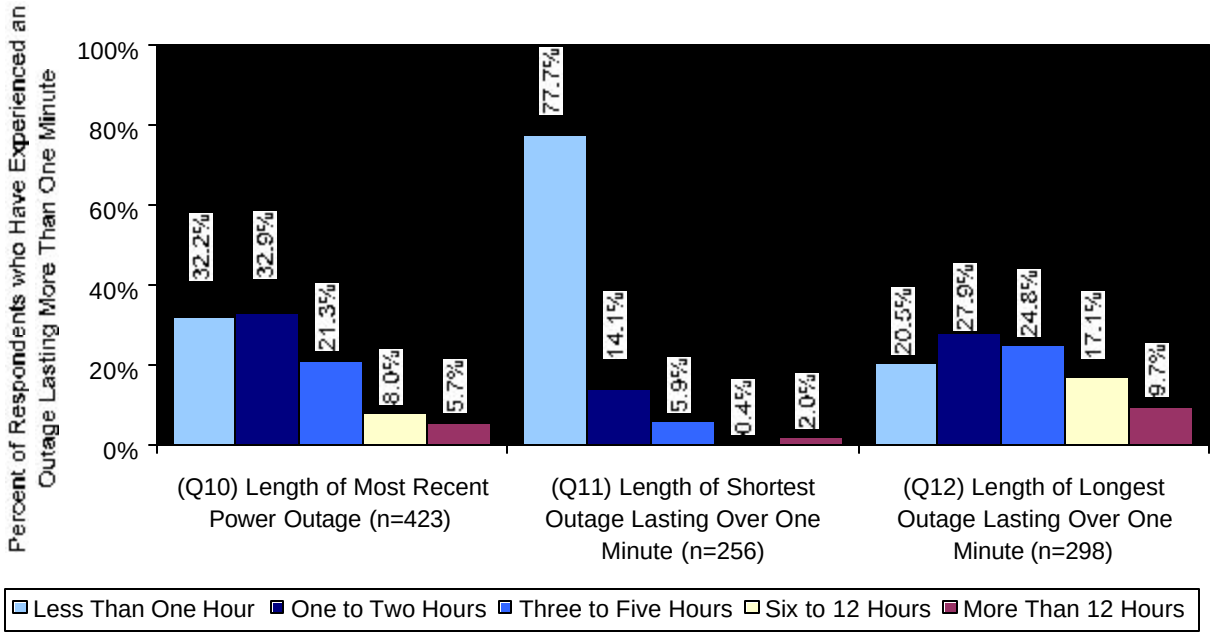
Overall Findings: Q10, Q11, and Q12

?? **One-third of respondents (32 percent) who experienced a power outage lasting MORE than one minute during the last 12 months said the most recent power outage lasted for less than one hour.** Figure 5 shows a complete breakdown of respondents who experienced a power outage lasting MORE than one minute in the last 12 months.

?? **More than three-quarters of respondents (78 percent) who experienced more than one outage lasting MORE than one minute during the past 12 months said the shortest of these outages lasted less than one hour.** Figure 5 shows a complete breakdown of the shortest outages respondents experienced lasting MORE than one minute in the last 12 months.

?? **Twenty-one percent of respondents who experienced more than one outage lasting MORE than one minute during the past 12 months said the longest of these outages lasted less than one hour.** See Figure 5 below for a complete breakdown of the longest outages respondents experienced lasting MORE than one minute in the last 12 months.

Figure 5: Length of Outages[1]



[1] Only those respondents who said they experienced an outage lasting MORE than one minute in the last 12 months were asked for the length of their most recent power outage. Only those respondents who said they experienced more than one outage lasting MORE than one minute in the last 12 months were asked for the length of the shortest and longest of these outages.

Significant Chi-Squares

?? **The length of power outages lasting MORE than one minute during the last 12 months (Q10) as reported by respondents varies significantly by:**

?? Respondent age (Q33). However, no clear pattern of response can be determined from the data.

?? **The length of the longest power outage lasting MORE than one minute during the last 12 months (Q12) as reported by respondents varies significantly by:**

?? Respondent age (Q33). However, no clear pattern of response can be determined from the data; and

?? Ownership status of the respondent's residence (Q34), however no clear pattern of response can be determined from the data.

Overall Findings: Q13 and Q14

?? **In the last 12 months, six percent of all residential respondents said they experienced a loss or damage due to electrical outages or other electrical problems.** Fifty-four percent of these respondents experienced a loss of perishables and 51 percent experienced a loss of electrical equipment or accessories. Three percent said they experienced some "other" type of loss. (see Table 2)

Table 2: Loss or Damage Suffered due to Electric Outages or Related Problems

(Q14) Loss or Damage Suffered	Percent of Respondents[1]
Loss of perishables	54.3%
Loss of electrical equipment or accessories	51.4%
Other	2.9%
(n)	35

[1] Respondents were permitted to mention more than one type of loss or damage suffered. Only those respondents who said they suffered a loss or damage due to an electrical outage or related problem were asked this question.

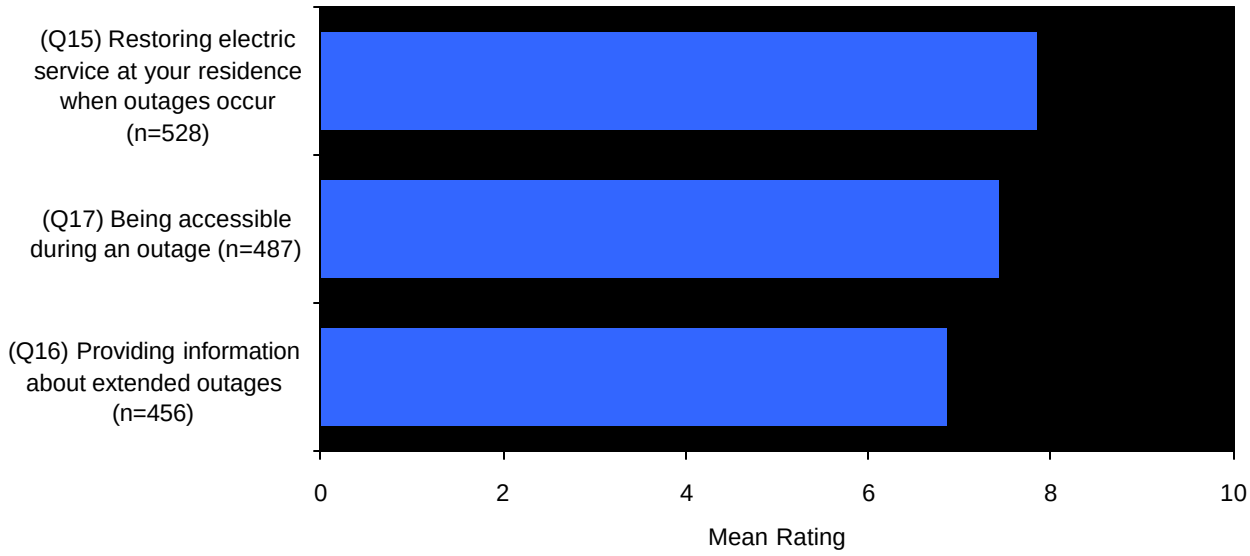
c. Customer Service Performance

In this subsection we discuss the utility's performance on customer service related items including the restoration of power, accessibility during outages, providing information about outages, and meeting customers' needs during service calls.

Overall Findings: Q15, Q16, and Q17

?? **Respondents give MidAmerican a mean rating of 7.86 for restoring electric service at their residence when outages occur.** As illustrated in Figure 6, respondents give the utility a mean rating of 7.44 for being accessible during an outage while they give the utility a mean rating of 6.88 for providing information about extended outages.

Figure 6: Mean Ratings for Customer Service Performance



Significant Chi-Squares

?? **Restoring electric service at your residence when outages occur (Q15) is rated higher by respondents who:**

?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);

?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);

?? Said the length of their last power outage lasting MORE than one minute in the past 12 months lasted less than 12 hours (Q10);

- ?? Said the length in hours of the SHORTEST outage lasting more than one minute was less than one hour (Q11);
- ?? Report their LONGEST outage in the past 12 months that lasted more than one minute was one hour or less in length (Q12);
- ?? Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13); and
- ?? Report they have NOT tried to reach the utility by phone within the past 12 months (Q18).

?? **In addition, ratings for restoring electric service when outages occur (Q15) vary significantly by:**

- ?? Respondent awareness of the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23), however no clear pattern of response can be determined from the data.

?? **Providing information about extended outages (Q16) is rated higher by respondents who:**

- ?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
- ?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
- ?? Said the length in hours of the SHORTEST outage lasting more than one minute was less than one hour (Q11);
- ?? Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);
- ?? Said they completed their most recent call to the utility by speaking with a customer service representative only (Q20);
- ?? Said they are VERY FAMILIAR or SOMEWHAT FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24); and
- ?? Are female (Q40).

?? **In addition, ratings for providing information about extended outages (Q16) vary significantly by:**

- ?? The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data; and
- ?? The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data.

?? **Being accessible during an outage (Q17) is rated higher by respondents who:**

?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);

?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);

?? Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);

?? Report they have NOT tried to reach the utility by phone within the past 12 months (Q18); and

?? Said they completed their most recent call to the utility by speaking with a customer service representative only or by speaking with a customer service representative and using the automated telephone response system (Q20).

?? **In addition, ratings for being accessible during an outage (Q17) vary significantly by:**

?? The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

?? **Restoring electric service at your residence when outages occur (Q15) significantly correlates with:**

?? Providing electric service overall (Q1);

?? Providing reliable electric service (Q2);

?? Keeping the electric system, including power lines and equipment, in good working order (Q4);

?? Minimizing the number of power outages lasting MORE than one minute (Q7);

?? Providing information about extended outages (Q16); and

?? Being accessible during an outage (Q17).

?? **Providing information about extended outages (Q16) significantly correlates with:**

?? Providing reliable electric service (Q2);

?? Keeping the electric system, including power lines and equipment, in good working order (Q4);

?? Restoring electric service at your residence when outages occur (Q15);

?? Being accessible during an outage (Q17);

?? Meeting the customers' needs during the most recent phone call (Q21); and

- Communicating the need for trimming trees (Q28).

- **Being accessible during an outage (Q17) significantly correlates with:**
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Restoring electric service at your residence when outages occur (Q15);
  - Providing information about extended outages (Q16); and
  - Meeting the customers' needs during the most recent phone call (Q21).

Overall Findings: Q18 and Q19

- **One-half of all residential respondents said they tried to reach MidAmerican by phone in the last 12 months.** Seventy-two percent of these respondents called the utility to report a power problem such as an outage or a downed wire. See Table 3 below for a complete breakdown of the reasons respondents cited for their most recent call to the utility.

Table 3: Reason for Making Most Recent Call to the Utility

(Q19) Reason for Most Recent Call	Percent of Respondents[1]
Report a power problem, outage, or downed wire	72.4%
Make a payment arrangement or other billing question	16.6%
Other	6.6%
Get information about locations, programs, or services	3.1%
Stop, start, or transfer service	1.4%
(n)	290

[1] Only those respondents who said they called the utility in the past 12 months were asked this question.

Significant Chi-Squares

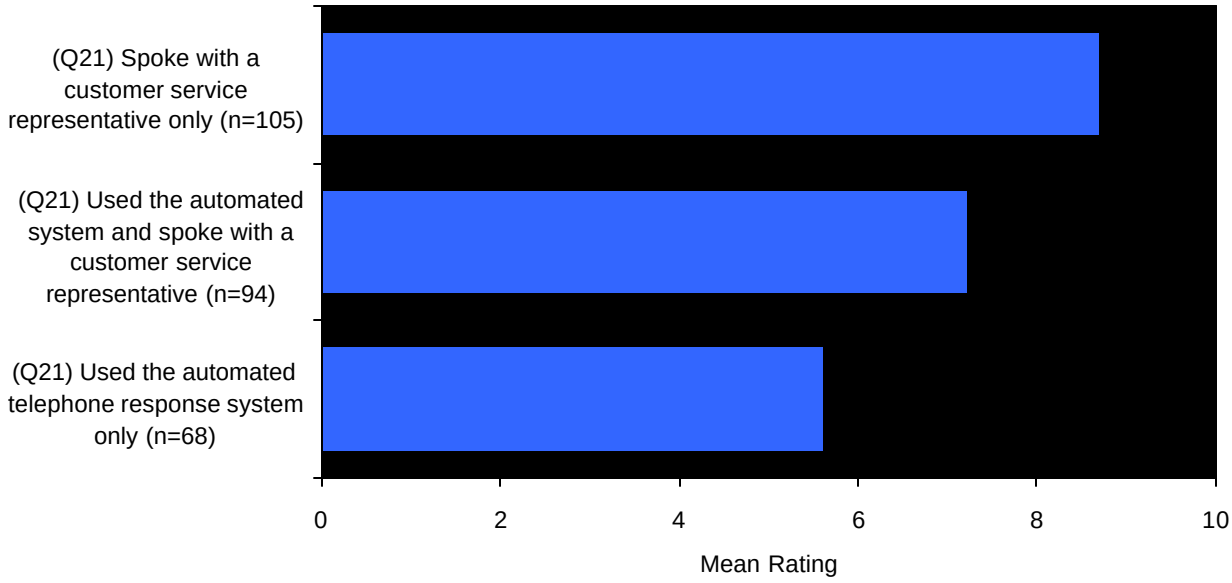
- **Respondents who said they have tried to reach the utility by phone in the past 12 months (Q18) are significantly more likely to:**
  - Report there are two or more people (including the respondent) who live in the respondent's household (Q37).

- **In addition, respondents who said they have tried to reach the utility by phone in the past 12 months (Q18) vary significantly by:**
  - Respondent age (Q33). However, no clear pattern of response can be determined from the data.
- **The reasons given for respondents' most recent calls to the utility (Q19) vary significantly by:**
  - Ownership status of the respondent's residence (Q34), however no clear pattern of response can be determined from the data;
  - Years lived at the current address (Q35) – Respondents who have lived at their residence for six or more years are more likely to say they called the utility to report a power problem, outage, or downed wire.
  - Respondent 1999 total pre-tax household income (Q36), however no clear pattern of response can be determined from the data.

Overall Findings: Q20 and Q21

- **Of those respondents who said they tried to reach MidAmerican in the past 12 months, 40 percent said they spoke to a live customer service representative, 34 percent said they used an automated telephone response system and spoke to a live customer service representative, and 26 percent said they completed their call through an automated telephone response system.**
- **Respondents who only spoke with a customer service representative give the utility an average rating of 8.70 for meeting their needs during the phone call.** Respondents who used the automated system and spoke with a customer service representative give the utility an average rating of 7.23 and respondents who only used the automated telephone response system give the utility an average rating of 5.62. (see Figure 7)

Figure 7: Mean Ratings for Meeting Customers' Needs during Phone Calls[1]



[1] Only those respondents who said they called the utility in the last 12 months were asked this question.

Significant Chi-Squares

- **The methods respondents used to reach the utility in the past 12 months (Q20) vary significantly by:**
  - Ownership status of the respondent's residence (Q34) – Respondents who rent or lease their residence are more likely to have contacted their utility by speaking with a customer service representative.
- **Meeting customers' needs during phone calls (Q21) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Said the length of their last power outage lasting MORE than one minute in the past 12 months lasted less than 12 hours (Q10);
  - Said the length in hours of the SHORTEST outage lasting more than one minute was less than one hour (Q11);
  - Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);
  - Said they completed their most recent call to the utility by speaking with a customer service representative only (Q20); and

- Said they are VERY FAMILIAR or SOMEWHAT FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24).

- **In addition, ratings for meeting customers' needs during phone calls (Q21) vary significantly by:**

  - Respondent awareness of the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23), however no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

- **Meeting the customers' needs during their most recent phone call to the utility (Q21) significantly correlates with:**

  - Providing information about extended outages (Q16); and
  - Being accessible during an outage (Q17).

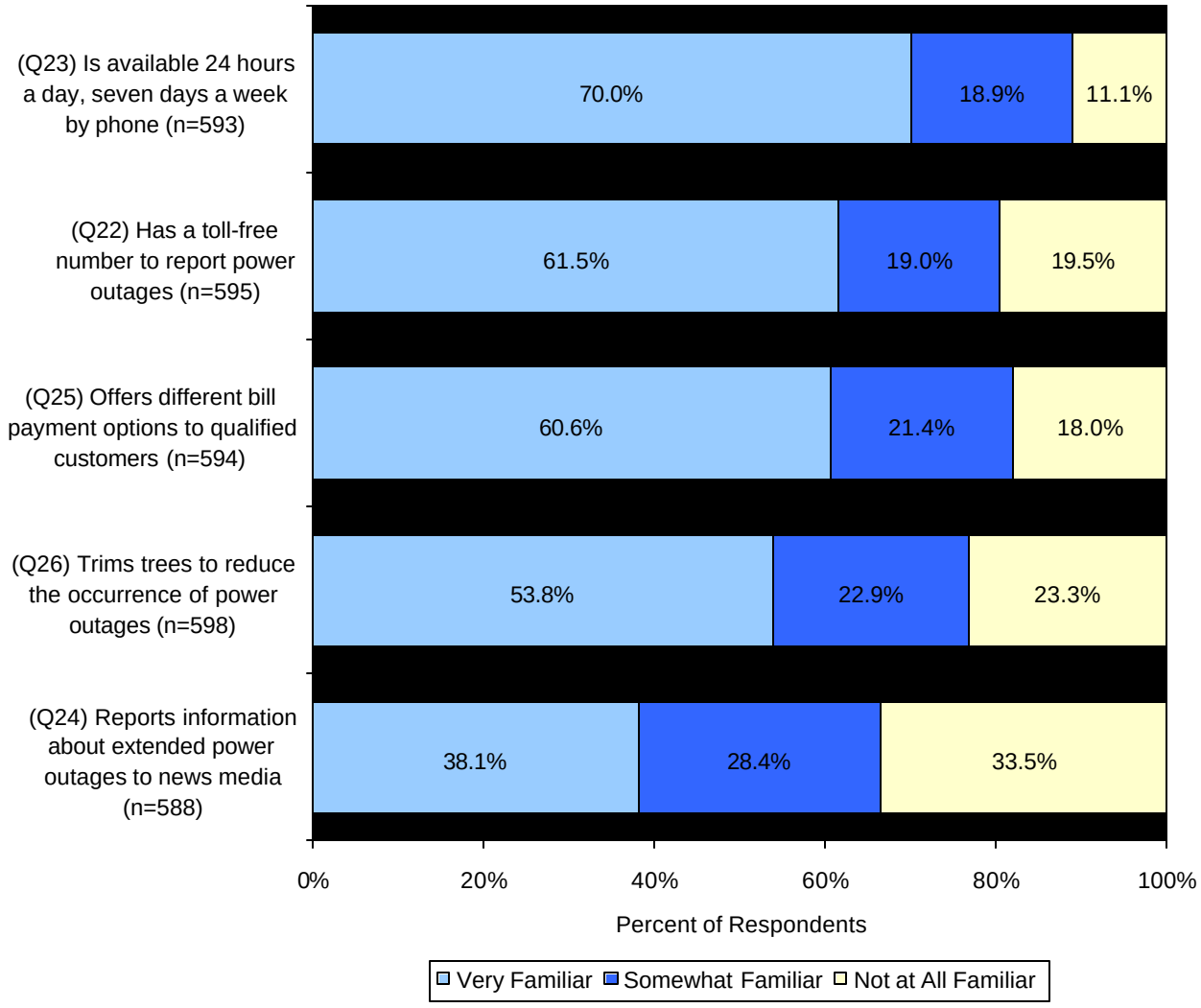
d. Understanding of Services

We asked survey respondents to rate their familiarity with various utility services. The findings are presented below.

Overall Findings: Q22, Q23, Q24, Q25, and Q26

?? **Seven out of 10 residential respondents (70 percent) said they are very familiar with their utility representatives being available 24 hours a day, seven days a week by phone.** See Figure 8 below for a complete breakdown of respondent familiarity with various utility services.

Figure 8: Familiarity with Utility Services



Significant Chi-Squares

- **Respondents who said they are VERY FAMILIAR with the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23) are significantly more likely to:**
  - Say they own or are buying their residence (Q34).
- **Respondents who said they are VERY FAMILIAR with the utility offering different bill payment options to qualified customers (Q25) are significantly more likely to:**
  - Be age 35 or older (Q33).
- **Respondents who said they are VERY FAMILIAR with the utility trimming trees to reduce the occurrence of power outages (Q26) are significantly more likely to:**
  - Say they own or are buying their residence (Q34).
- **In addition, respondent awareness of the utility trimming trees to reduce the occurrence of power outages (Q26) varies significantly by:**
  - Respondent age (Q33). However, no clear pattern of response can be determined from the data.

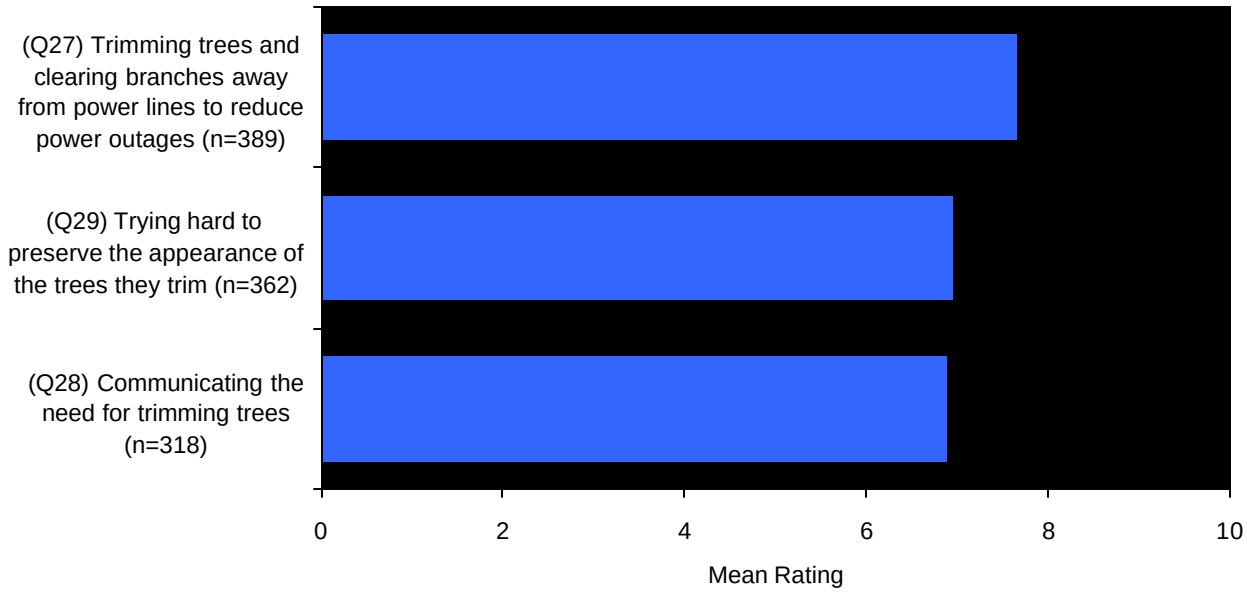
e. Tree Trimming Performance

We asked those residential respondents who are either very familiar or somewhat familiar with their utility trimming trees to reduce the occurrence of power outages three questions about MidAmerican's tree trimming performance. Findings are presented below.

Overall Findings: Q27, Q28, and Q29

?? **On average, respondents give MidAmerican a rating of 7.67 for trimming trees and clearing branches away from power lines to reduce power outages.** As illustrated in Figure 9, respondents give the utility an average rating of 6.97 for trying hard to preserve the appearance of the trees they trim while they give the utility an average rating of 6.90 for communicating the need for trimming trees.

Figure 9: Mean Ratings for Tree Trimming Performance[1]



[1] Only respondents who said they are very or somewhat familiar with the utility trimming trees to reduce the occurrence of power outages were asked these questions.

Significant Chi-Squares

?? **Trimming trees and clearing branches away from power lines to reduce power outages (Q27) is rated higher by respondents who:**

?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);

- ?? Said they are VERY FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24);
- ?? Said they are VERY FAMILIAR with the utility trimming trees to reduce the occurrence of power outages (Q26); and
- ?? Are female (Q40).

?? **In addition, ratings for trimming trees and clearing branches away from power lines to reduce power outages (Q27) vary significantly by:**

- ?? Whether or not respondents have experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13). However, no clear pattern of response can be determined from the data; and
- ?? Respondent 1999 total pre-tax household income (Q36), however no clear pattern of response can be determined from the data.

?? **Communicating the need for trimming trees (Q28) is rated higher by respondents who:**

- ?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
- ?? Said the length of their last power outage lasting MORE than one minute in the past 12 months was less than one hour (Q10);
- ?? Said they are VERY FAMILIAR with the utility trimming trees to reduce the occurrence of power outages (Q26); and
- ?? Are female (Q40).

?? **In addition, ratings for communicating the need for trimming trees (Q28) vary significantly by:**

- ?? The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data; and
- ?? Whether or not they have experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13). However, no clear pattern of response can be determined from the data.

?? **Trying hard to preserve the appearance of the trees they trim (Q29) is rated higher by respondents who:**

- ?? Said they are VERY FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24).

?? **In addition, ratings for trying hard to preserve the appearance of the trees they trim (Q29) vary significantly by:**

- ?? Respondent gender (Q40), however no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

- **Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages (Q27) significantly correlates with:**
  - Communicating the need for trimming trees (Q28); and
  - Trying hard to preserve the appearance of the trees they trim (Q29).
- **Communicating the need for trimming trees (Q28) significantly correlates with:**
  - Providing information about extended outages (Q16);
  - Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages (Q27); and
  - Trying hard to preserve the appearance of the trees they trim (Q29).
- **Trying hard to preserve the appearance of the trees they trim (Q29) significantly correlates with:**
  - Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages (Q27); and
  - Communicating the need for trimming trees (Q28).

f. Billing

We asked survey respondents if they receive a bill from MidAmerican at home and if they personally see or handle this bill. Those respondents who receive and handle this utility bill were asked to rate the utility's performance on providing a bill that makes it easy to tell how much the current month's charges are. The findings are presented below.

Overall Findings: Q30 and Q31

- **Almost all residential respondents (98 percent) said they receive a bill from MidAmerican at their home and nine out of 10 of these respondents (91 percent) said they personally see or handle this bill.**

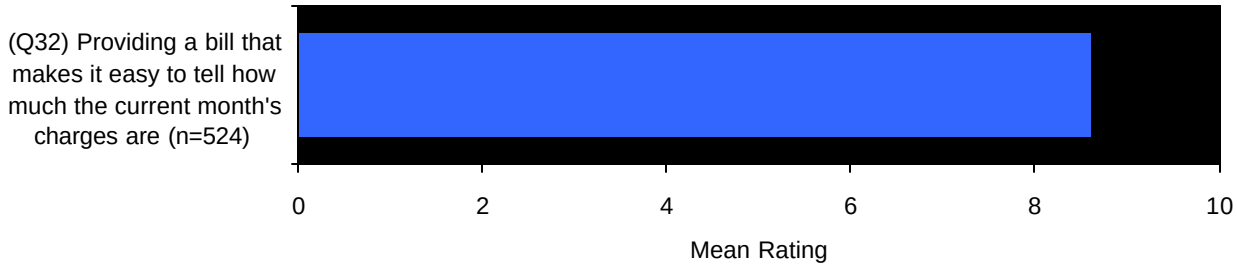
Significant Chi-Squares

- **Respondents who said they receive a bill from their utility at this location (Q30) vary significantly by:**
  - Ownership status of the respondent's residence (Q34). Respondents who own their residence are more likely to say they receive the bill at that location.
- **Respondents who said they personally see or handle the utility bill (Q31) vary significantly by:**
  - Respondent gender (Q40) – Female respondents are more likely to personally see or handle the utility bill than male respondents.

Overall Findings: Q32

- **Respondents who receive and handle the bill from MidAmerican give the utility a mean rating of 8.62 for providing a bill that makes it easy to tell how much the current month's charges are.** (see Figure 10)

Figure 10: Mean Ratings for Billing[1]



[1] Only respondents who said they receive a bill from the utility at this location and personally see or handle this bill were asked this question.

Significant Chi-Squares

?? **Providing a bill that makes it easy to tell how much the current month's charges are (Q32) is rated higher by respondents who:**

?? Are female (Q40).

?? **Ratings for providing a bill that makes it easy to tell how much the current month's charges are (Q32) vary significantly by:**

?? The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;

?? The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data;

?? Respondent age (Q33). However, no clear pattern of response can be determined from the data; and

?? Years lived at the current address (Q35), however no clear pattern of response can be determined from the data.

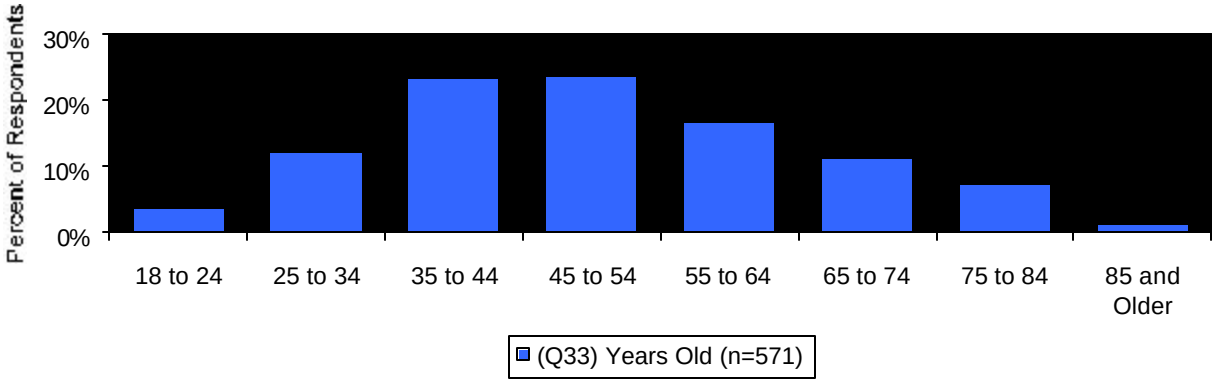
g. Demographics

We asked survey respondents several demographic questions in order to group their answers with those of others taking part in the survey. The findings are presented below.

Overall Findings: Q33

?? **Six out of 10 survey respondents (63 percent) said they are less than 55 years old.** (see Figure 11)

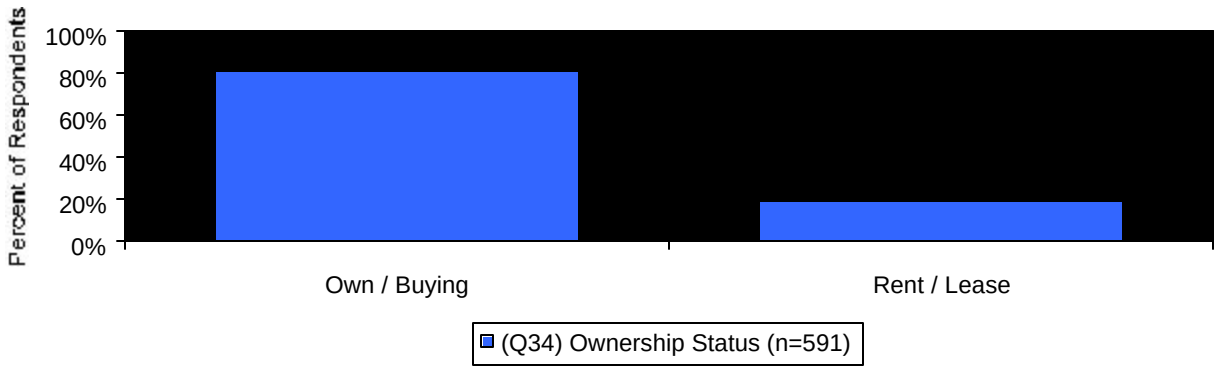
Figure 11: Respondent Age



Overall Findings: Q34

?? **Eighty-one percent of residential respondents said they either own their own home or are currently buying a home.** Nineteen percent said they currently rent or lease their residence. (see Figure 12)

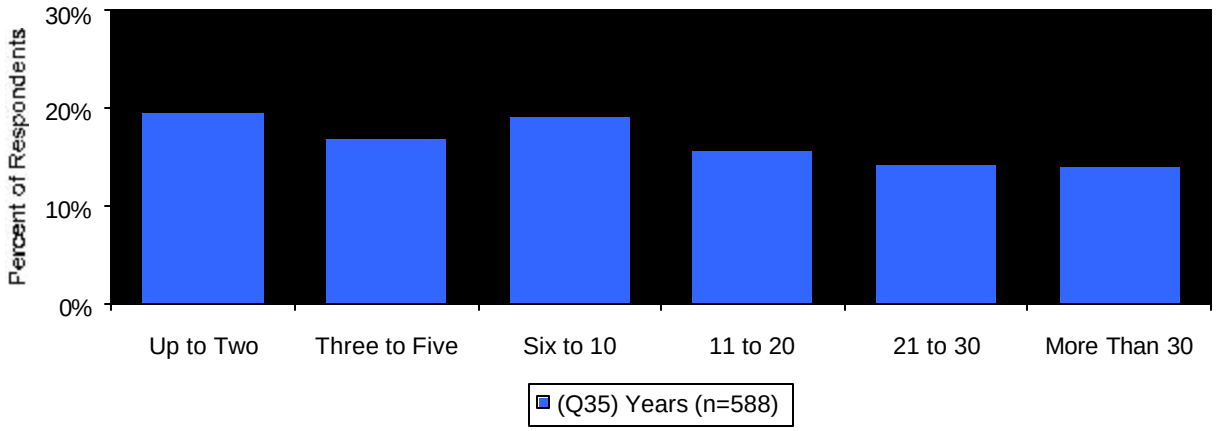
Figure 12: Ownership of Residence



Overall Findings: Q35

?? **As illustrated in Figure 13, more than one-half of residential respondents (56 percent) said they have lived in their current residence for 10 years or less.** Thirty percent of respondents said they have lived in their current residence for 11 to 30 years while 14 percent said they have lived in their current residence for more than 30 years.

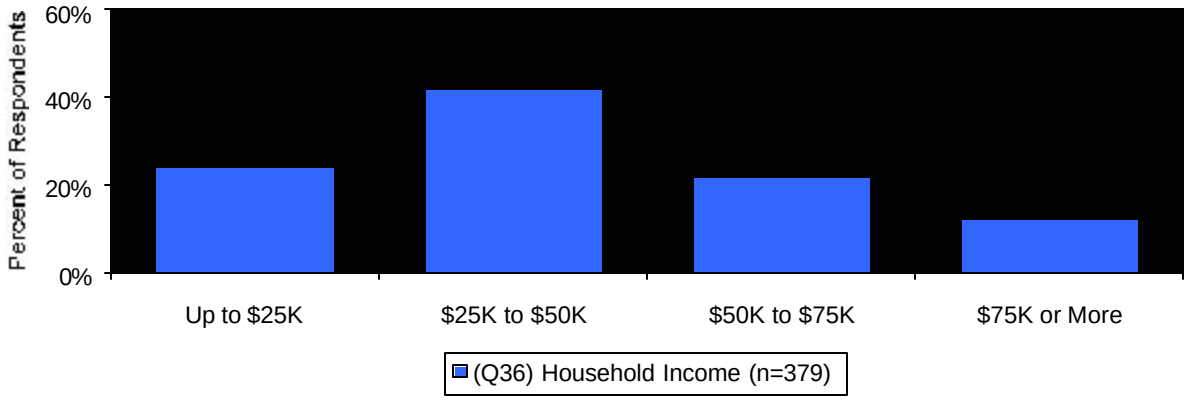
Figure 13: Years Lived in Current Residence



Overall Findings: Q36

?? **Sixty-six percent of residential respondents said their household income is less than $50,000 per year.** (see Figure 14)

Figure 14: Respondent Household Income [1]

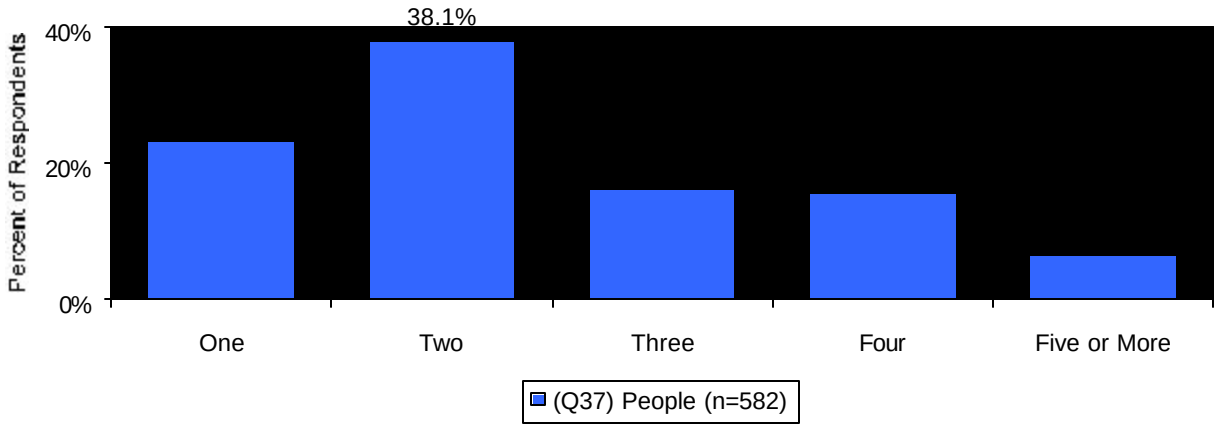


[1] Thirty-three percent of respondents refused to answer this question while four percent said they "don't know."

Overall Findings: Q37

?? **Sixty-two percent of respondents said there is either one or two people living in their household** while 32 percent said there are either three or four people living in their household. Seven percent of respondents said there are five or more people living in their household. (see Figure 15)

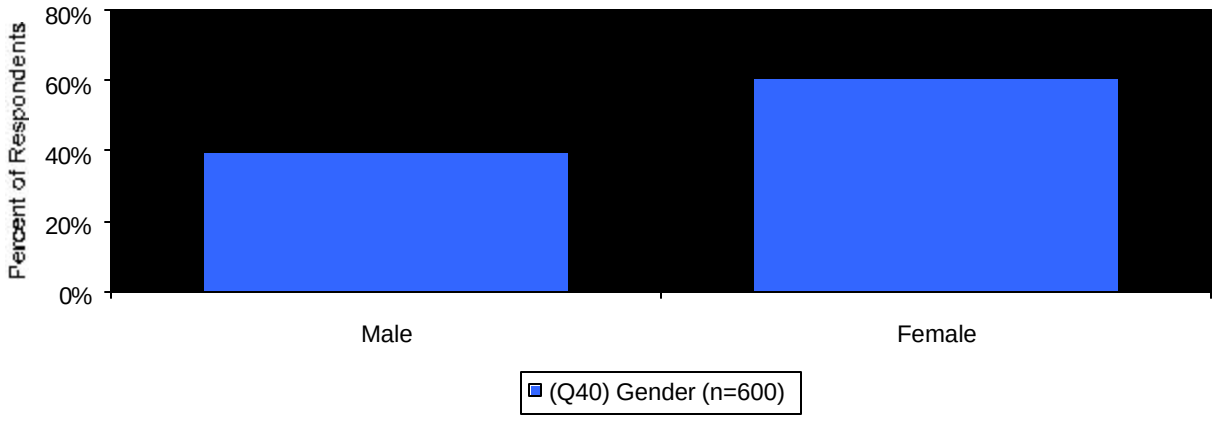
Figure 15: People Living in Respondent Households



Overall Findings: Q40

?? **Two out of five residential respondents (40 percent) are male.** (see Figure 16)

Figure 16: Respondent Gender



Section VI: Non-Residential Executive Summary

This section of the report is divided into seven major subsections that present the findings of the 373 telephone surveys conducted with MidAmerican's non-residential customers. The subsections are in the order they appear in the survey instrument (see Appendix A).

?? Subsection "a" provides ratings of the utility's overall electric service, their ability to provide reliable service, and their performance on keeping electric rates reasonable.

?? Subsection "b" discusses MidAmerican's reliability in detail including the length and timing of recent outages.

?? Subsection "c" presents non-residential customer opinions of utility services including restoration of power, keeping the public informed, and being accessible.

?? Subsection "d" discusses non-residential respondents' familiarity with various utility services.

?? Subsection "e" presents customer opinions of utility tree trimming efforts.

?? Subsection "f" discusses the receipt, handling, and ease of use of MidAmerican's billing statements.

?? Finally, subsection "g" presents respondent firmographic information including the number of employees at this respondent's location, the number of years in business at this location, and respondent gender.

All survey questions asked of non-residential respondents are discussed within this Non-Residential Executive Summary. There are three types of questions contained in the survey: rating questions, yes/no questions, and categorical questions. In each of the seven subsections which follow, overall question results are either discussed or graphically presented and then significant findings for those questions are outlined.

Rating Questions. All rating questions use a zero to 10 scale, where zero means the utility is doing a poor job and 10 means the utility is doing an excellent job. As required in Illinois Administrative Code 411.350, all rating questions underwent two broad statistical tests.

?? *Pearson Product Moment Correlation Coefficients* – Significant relationships between a particular rating question and all other rating questions were determined through the use of the Pearson Product Moment Correlation Coefficient. Only those rating question combinations that resulted in a correlation coefficient with an absolute value of 0.5 or higher are discussed within this Executive Summary.

?? *Chi-Square* – Significant relationships between a particular rating question and all yes/no, categorical, and demographic questions were determined through the use of the Chi-Square test. Only those Chi-Squares with a significance of 0.05 or less are discussed within this Executive Summary. Upon finding a significant Chi-Square, the research team utilized a standard independent t-test for means in order to provide further insight into the nature or direction of the relationship between a rating question and a yes/no, categorical, or demographic question. When reviewing the t-test results, the research team looked for a "general pattern of response" rather than statistical significance within every dimension of the cross-tabulation table.

Yes/No and Categorical Questions. As required in Illinois Administrative Code 411.350, all yes/no and categorical questions underwent a single statistical test.

?? *Chi-Square* – Significant relationships between a particular yes/no or categorical question and all demographic questions were determined through the use of the Chi-Square test. Only those Chi-Squares with a significance of 0.05 or less are discussed within this Executive Summary. Upon finding a significant Chi-Square, the research team utilized a standard independent z-test for percentages in order to provide further insight into the nature or direction of the relationship between the yes/no or categorical question and a demographic question. When reviewing the z-test results, the research team looked for a "general pattern of response" rather than statistical significance within every dimension of the cross-tabulation table.

An explanation of the tables contained in the appendices (Chi-Square tables, ranking tables, and t-test/z-test tables) and the statistical tests used in this study (correlation coefficients, Chi-Square tests, t-tests, and z-tests) are located in Appendix B. Correlation coefficients of all non-residential rating questions by all other rating questions are located in Appendix C. Required cross tabulations, statistical ranking tables, and t-test/z-test tables for all non-residential survey questions are available in electronic format (file name: Appendix E_MidAm Non-Res Tables 2000.doc) while a chart of question combinations with significant Chi-Squares is located in Appendix E.

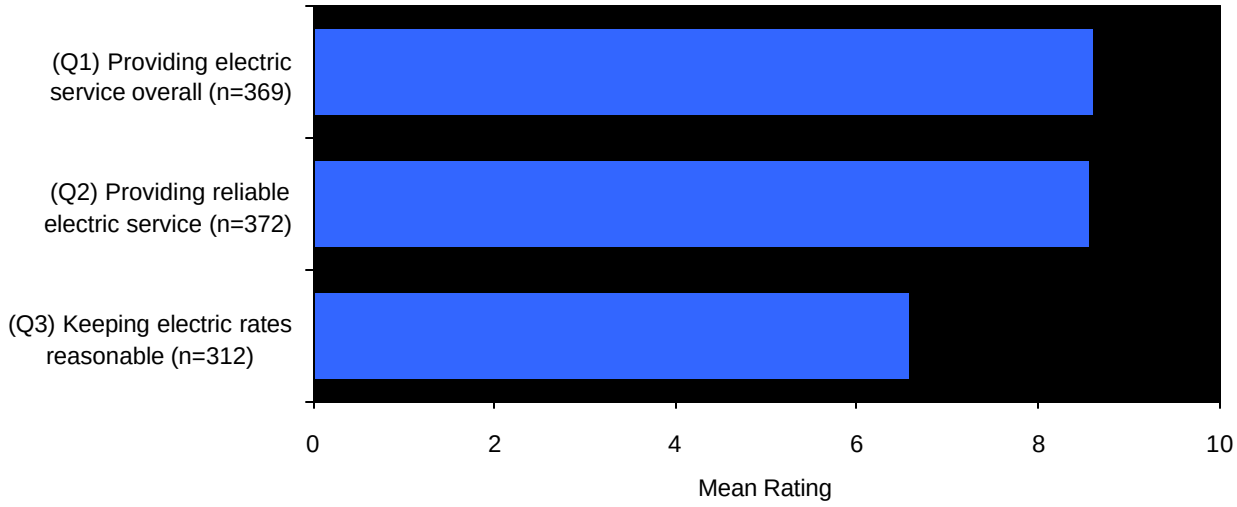
a. Overall Satisfaction

We asked survey respondents to rate the job MidAmerican does on providing electric service overall. In addition, we asked respondents to rate the reliability of electric service they receive and to rate how well MidAmerican keeps their electric rates reasonable. Key findings are summarized below.

Overall Findings: Q1, Q2, and Q3

?? **On average, respondents give MidAmerican a rating of 8.62 for providing electric service overall.** As illustrated in Figure 17, respondents give the utility an average rating of 8.57 for providing reliable electric service while they give the utility an average rating of 6.59 for keeping electric rates reasonable.

Figure 17: Mean Ratings for Overall Satisfaction



Significant Chi-Squares

?? **Providing electric service overall (Q1) is rated higher by respondents who:**

?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6); and

?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8).

- **In addition, ratings for providing electric service overall (Q1) vary significantly by:**
  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data;
  - The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data;
  - Respondent familiarity with the utility reporting information about extended power outages to the news media to keep customers informed (Q24). However, no clear pattern of response can be determined from the data; and
  - Respondent familiarity with the utility trimming trees to reduce the occurrence of power outages (Q26). However, no clear pattern of response can be determined from the data.
- **Providing reliable electric service (Q2) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
  - Report their LONGEST outage in the past 12 months that lasted more than one minute was two hours or less in length (Q12); and
  - Are female (Q40).
- **In addition, ratings for providing reliable electric service (Q2) vary significantly by:**
  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data;
  - Respondent familiarity with the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23), however no clear pattern of response can be determined from the data; and
  - Respondent familiarity with the utility trimming trees to reduce the occurrence of power outages (Q26). However, no clear pattern of response can be determined from the data.

?? **Keeping electric rates reasonable (Q3) is rated higher by respondents who:**

?? Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13); and

?? Said they are VERY FAMILIAR with the utility trimming trees to reduce the occurrence of power outages (Q26).

?? **In addition, ratings for keeping electric rates reasonable (Q3) vary significantly by:**

?? The number of power outages lasting MORE than one minute in the past 12 months (Q8). However, no clear pattern of response can be determined from the data; and

?? The reason for making their most recent call to the utility (Q19). However, no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

?? **Providing electric service overall (Q1) significantly correlates with:**

?? Providing reliable electric service (Q2);

?? Keeping your electric rates reasonable (Q3);

?? Keeping the electric system, including power lines and equipment, in good working order (Q4);

?? Minimizing the number of power interruptions lasting LESS than one minute (Q5);

?? Minimizing the number of power outages lasting MORE than one minute (Q7); and

?? Restoring electric service at your residence when outages occur (Q15).

?? **Providing reliable electric service (Q2) significantly correlates with:**

?? Providing electric service overall (Q1);

?? Keeping the electric system, including power lines and equipment, in good working order (Q4);

?? Minimizing the number of power interruptions lasting LESS than one minute (Q5);

?? Minimizing the number of power outages lasting MORE than one minute (Q7);

?? Restoring electric service at your residence when outages occur (Q15);

?? Being accessible during an outage (Q17); and

?? Meeting the customers' needs during the most recent phone call (Q21).

?? **Keeping your electric rates reasonable (Q3) significantly correlates with:**

?? Providing electric service overall (Q1).

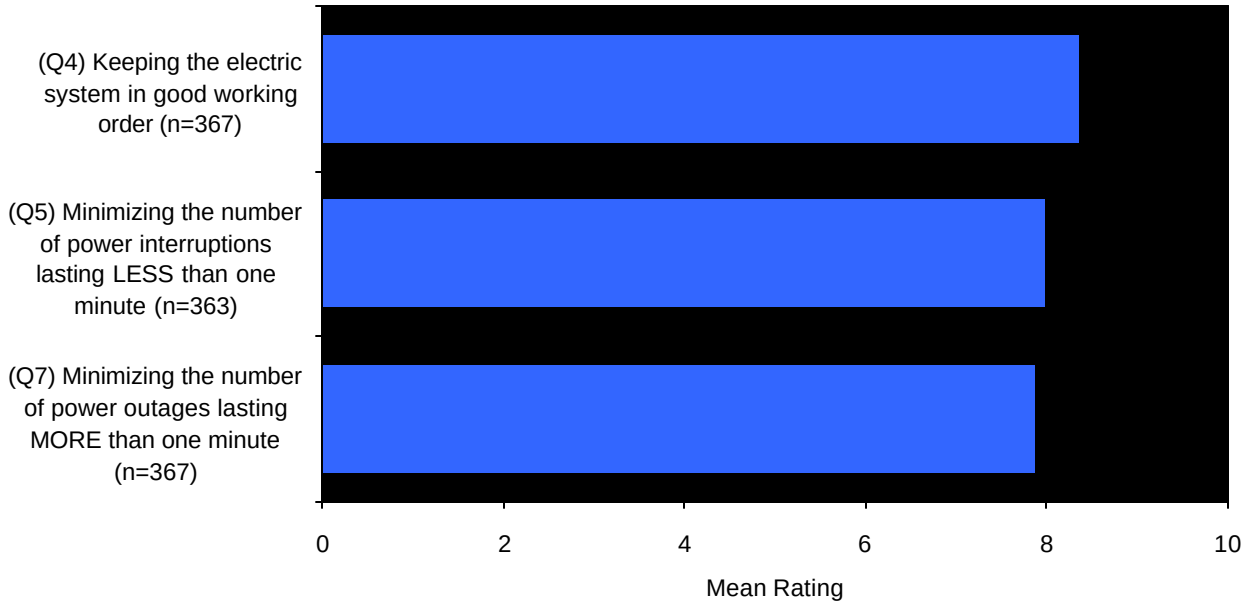
b. Reliability Performance

Respondents were asked to rate MidAmerican's performance on electric reliability. In addition, respondents were asked how many power interruptions lasting less than and more than one minute they have experienced in the last 12 months and how long these power interruptions lasted. Key findings are summarized below.

Overall Findings: Q4, Q5, and Q7

- **Respondents give MidAmerican a mean rating of 8.36 for keeping the electric system in good working order.** In addition, respondents give the utility a mean rating of 7.99 for minimizing the number of power interruptions lasting LESS than one minute while they give the utility a mean rating of 7.89 for minimizing the number of power outages lasting MORE than one minute. (see Figure 18)

Figure 18: Mean Ratings for Reliability Performance



Significant Chi-Squares

- **Keeping the electric system in good working order (Q4) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8); and

- Are female (Q40).

- **In addition, ratings for keeping the electric system in good working order (Q4) vary significantly by:**

  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data;
  - The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data;
  - Respondent awareness of the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23), however no clear pattern of response can be determined from the data;
  - Respondent familiarity with the utility reporting information about extended power outages to the news media to keep customers informed (Q24). However, no clear pattern of response can be determined from the data; and
  - Respondent familiarity with the utility trimming trees to reduce the occurrence of power outages (Q26). However, no clear pattern of response can be determined from the data.

- **Minimizing the number of power interruptions lasting LESS than one minute (Q5) is rated higher by respondents who:**

  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
  - Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13); and
  - Said they are VERY FAMILIAR or SOMEWHAT FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24).

- **In addition, ratings for minimizing the number of power interruptions lasting LESS than one minute (Q5) vary significantly by:**

  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data;

- The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data;
- Respondent familiarity with the utility trimming trees to reduce the occurrence of power outages (Q26). However, no clear pattern of response can be determined from the data; and
- Years the respondent's company has conducted business at this location (Q39), however no clear pattern of response can be determined from the data.

- **Minimizing the number of power outages lasting MORE than one minute (Q7) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
  - Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);
  - Said they completed their most recent call to the utility by speaking with a customer service representative only or by using the automated telephone response system only (Q20);
  - Said they are VERY FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24); and
  - Are female (Q40).

- **In addition, ratings for minimizing the number of power outages lasting MORE than one minute (Q7) vary significantly by:**
  - The timing (month and day) of the most recent outage lasting MORE than one minute in the past 12 months (Q9). However, no clear pattern of response can be determined from the data;
  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data; and
  - The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

- **Keeping the electric system, including power lines and equipment, in good working order (Q4) significantly correlates with:**
  - Providing electric service overall (Q1);
  - Providing reliable electric service (Q2);
  - Minimizing the number of power interruptions lasting LESS than one minute (Q5);
  - Minimizing the number of power outages lasting MORE than one minute (Q7);
  - Restoring electric service at your residence when outages occur (Q15);
  - Providing information about extended outages (Q16);
  - Being accessible during an outage (Q17);
  - Meeting the customers' needs during the most recent phone call (Q21); and
  - Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages (Q27).
- **Minimizing the number of power interruptions lasting LESS than one minute (Q5) significantly correlates with:**
  - Providing electric service overall (Q1);
  - Providing reliable electric service (Q2);
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power outages lasting MORE than one minute (Q7);
  - Restoring electric service at your residence when outages occur (Q15); and
  - Providing information about extended outages (Q16).
- **Minimizing the number of power outages lasting MORE than one minute (Q7) significantly correlates with:**
  - Providing electric service overall (Q1);
  - Providing reliable electric service (Q2);
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power interruptions lasting LESS than one minute (Q5);
  - Restoring electric service at your residence when outages occur (Q15);
  - Providing information about extended outages (Q16);

?? Being accessible during an outage (Q17); and

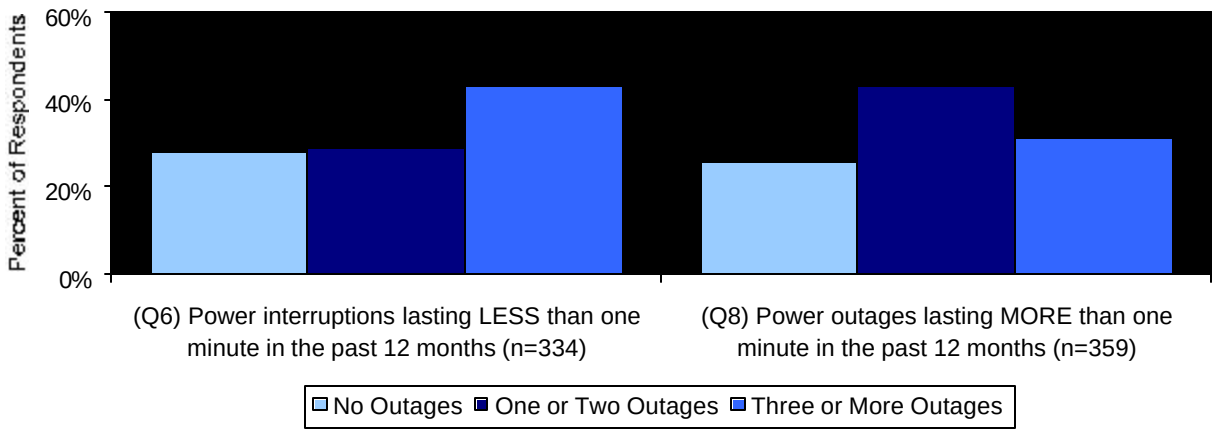
?? Meeting the customers' needs during the most recent phone call (Q21).

Overall Findings: Q6 and Q8

?? **In the past 12 months, 28 percent of all non-residential respondents said they have experienced no power interruptions lasting LESS than one minute.** Nearly one out of three (29 percent) said they have experienced one or two outages and 43 percent said they have experienced three or more outages. (see Figure 19)

?? **In the past 12 months, 26 percent of all non-residential respondents said they have experienced no power outages lasting MORE than one minute** while more than two-fifths (43 percent) said they have experienced one or two outages and 31 percent of respondents said they have experienced three or more outages. (see Figure 19)

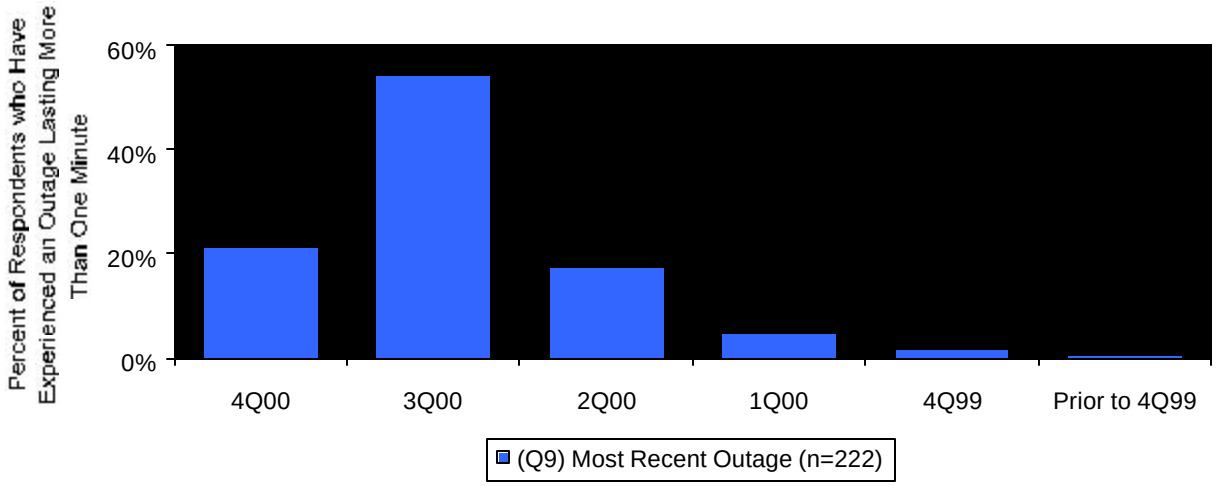
Figure 19: Number of Outages



Overall Findings: Q9

?? **Of those respondents who have experienced an outage lasting MORE than one minute in the last 12 months, more than one-half (54 percent) said the most recent outage occurred during the third quarter of 2000.** See Figure 20 on the following page for a complete breakdown of when respondents said their last outage lasting MORE than one minute occurred.

Figure 20: Most Recent Outage



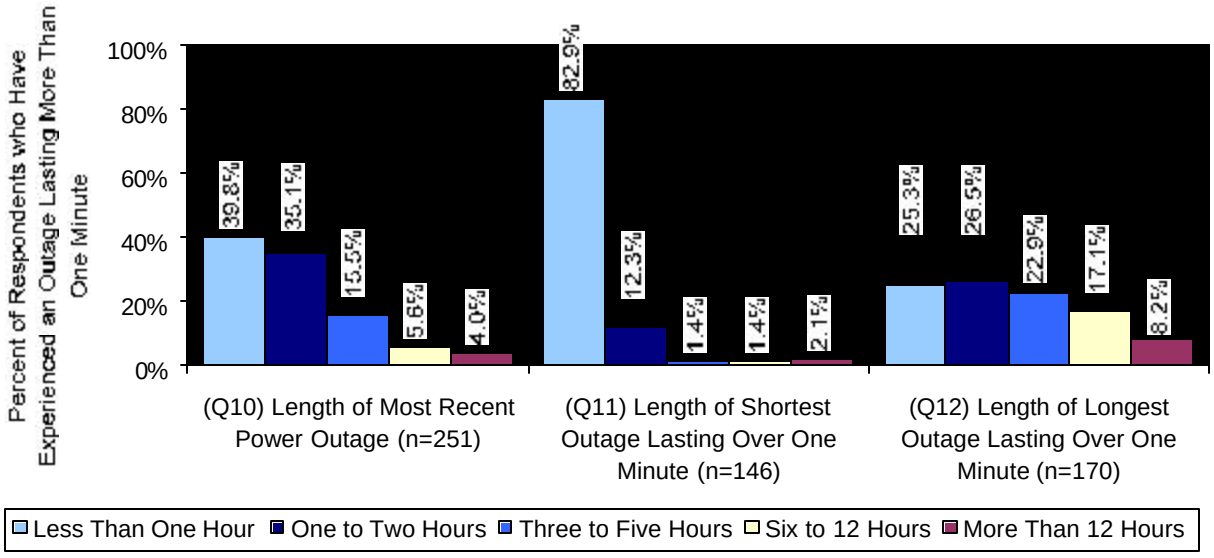
Overall Findings: Q10, Q11, and Q12

?? **Forty percent of respondents who experienced a power outage lasting MORE than one minute during the last 12 months said the most recent power outage lasted for less than one hour.** Figure 21 shows a complete breakdown of respondents who experienced a power outage lasting MORE than one minute in the last 12 months.

?? **More than four out of five respondents (83 percent) who experienced more than one outage lasting MORE than one minute during the past 12 months said the shortest of these outages lasted less than one hour.** Figure 21 shows a complete breakdown of the shortest outages respondents experienced lasting MORE than one minute in the last 12 months.

?? **One-quarter of respondents (25 percent) who experienced more than one outage lasting MORE than one minute during the past 12 months said the longest of these outages lasted less than one hour.** See Figure 21 for a complete breakdown of the longest outages respondents experienced lasting MORE than one minute in the last 12 months.

Figure 21: Length of Outages[1]



[1] Only those respondents who said they experienced an outage lasting MORE than one minute in the last 12 months were asked for the length of their most recent power outage. Only those respondents who said they experienced more than one outage lasting MORE than one minute in the last 12 months were asked for the length of the shortest and longest of these outages.

Overall Findings: Q13 and Q14

?? **In the last 12 months, 18 percent of all non-residential respondents said they experienced a loss or damage due to electrical outages or other electrical problems.** As illustrated in Table 4, 67 percent of these respondents experienced an interruption of business, 39 percent experienced a loss of electrical equipment or accessories, and six percent experienced a loss of perishables. Sixteen percent said they experienced some "other" type of loss.

Table 4: Loss or Damage Suffered due to Electric Outages or Related Problems

(Q14) Loss or Damage Suffered	Percent of Respondents[1]
Interruption of business	67.2%
Loss of electrical equipment or accessories	39.1%
Other	15.6%
Loss of perishables	6.3%
(n)	64

[1] Respondents were permitted to mention more than one type of loss or damage suffered. Only those respondents who said they suffered a loss or damage due to an electrical outage or related problem were asked this question.

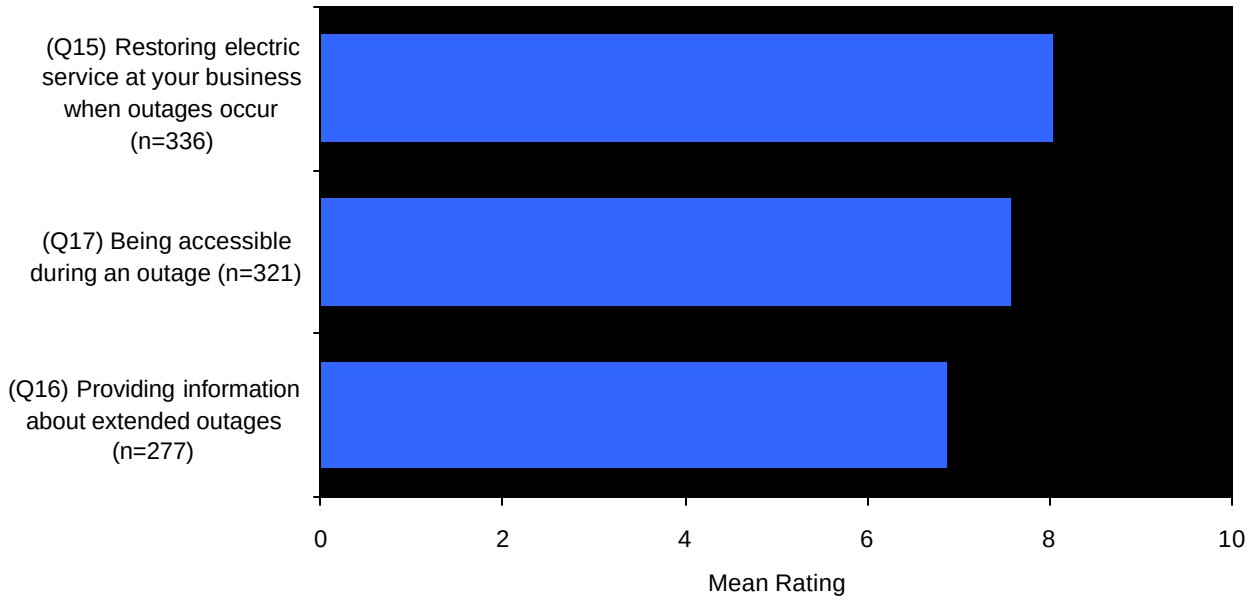
c. Customer Service Performance

In this subsection we discuss the utility's performance on customer service related items including the restoration of power, accessibility during outages, providing information about outages, and meeting customers' needs during service calls.

Overall Findings: Q15, Q16, and Q17

?? **Respondents give MidAmerican a mean rating of 8.04 for restoring electric service at their business when outages occur.** As illustrated in Figure 22, respondents give the utility a mean rating of 7.59 for being accessible during an outage while they give the utility a mean rating of 6.89 for providing information about extended outages.

Figure 22: Mean Ratings for Customer Service Performance



Significant Chi-Squares

?? **Restoring electric service at your business when outages occur (Q15) is rated higher by respondents who:**

?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);

?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);

?? Report their LONGEST outage in the past 12 months that lasted more than one minute was two hours or less in length (Q12);

- Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);
- Said they are VERY FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24);
- Said they are VERY FAMILIAR with the utility trimming trees to reduce the occurrence of power outages (Q26); and
- Are female (Q40).

- **In addition, ratings for restoring electric service when outages occur (Q15) vary significantly by:**
  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data; and
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data.

- **Providing information about extended outages (Q16) is rated higher by respondents who:**
  - Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
  - Said they have NOT experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13);
  - Said they completed their most recent call to the utility by speaking with a customer service representative only or by speaking with a customer service representative and using the automated telephone response system (Q20); and
  - Said they are VERY FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24).

- **In addition, ratings for providing information about extended outages (Q16) vary significantly by:**
  - The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data; and
  - Whether or not the respondent receives a bill from the utility at this location (Q30). However, no clear pattern of response can be determined from the data.

?? **Being accessible during an outage (Q17) is rated higher by respondents who:**

?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);

?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);

?? Said they are VERY FAMILIAR with the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23);

?? Said they are VERY FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24);

?? Said they are VERY FAMILIAR with the utility trimming trees to reduce the occurrence of power outages (Q26); and

?? Are female (Q40).

?? **In addition, ratings for being accessible during an outage (Q17) vary significantly by:**

?? The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data;

?? Respondent familiarity with the utility having a toll-free number to report power outages (Q22). However, no clear pattern of response can be determined from the data; and

?? Respondent familiarity with the utility offering different bill payment options to qualified customers, such as paying a fixed monthly amount (Q25). However, no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

?? **Restoring electric service at your residence when outages occur (Q15) significantly correlates with:**

?? Providing electric service overall (Q1);

?? Providing reliable electric service (Q2);

?? Keeping the electric system, including power lines and equipment, in good working order (Q4);

?? Minimizing the number of power interruptions lasting LESS than one minute (Q5);

?? Minimizing the number of power outages lasting MORE than one minute (Q7);

?? Providing information about extended outages (Q16);

?? Being accessible during an outage (Q17);

?? Meeting the customers' needs during the most recent phone call (Q21); and

- Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages (Q27).

- **Providing information about extended outages (Q16) significantly correlates with:**
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power interruptions lasting LESS than one minute (Q5);
  - Minimizing the number of power outages lasting MORE than one minute (Q7);
  - Restoring electric service at your residence when outages occur (Q15);
  - Being accessible during an outage (Q17);
  - Meeting the customers' needs during the most recent phone call (Q21); and
  - Communicating the need for trimming trees (Q28).

- **Being accessible during an outage (Q17) significantly correlates with:**
  - Providing reliable electric service (Q2);
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power outages lasting MORE than one minute (Q7);
  - Restoring electric service at your residence when outages occur (Q15);
  - Providing information about extended outages (Q16); and
  - Meeting the customers' needs during the most recent phone call (Q21).

Overall Findings: Q18 and Q19

- **Fifty-five percent of all non-residential respondents said they tried to reach MidAmerican by phone in the past 12 months.** Sixty-six percent of these respondents called to report a power problem such as an outage or a downed wire. See Table 5 on the following page for a complete breakdown of the reasons respondents cited for their most recent call to the utility.

Table 5: Reason for Making Most Recent Call to the Utility

(Q19) Reason for Most Recent Call	Percent of Respondents[1]
Report a power problem, outage, or downed wire	66.0%
Make a payment arrangement or other billing question	10.5%
Stop, start, or transfer service	8.5%
Other	8.0%
Get information about locations, programs, or services	7.0%
(n)	200

[1] Only those respondents who said they called the utility in the past 12 months were asked this question.

Significant Chi-Squares

?? **Respondents who said they have tried to reach the utility by phone in the past 12 months (Q18) are significantly more likely to:**

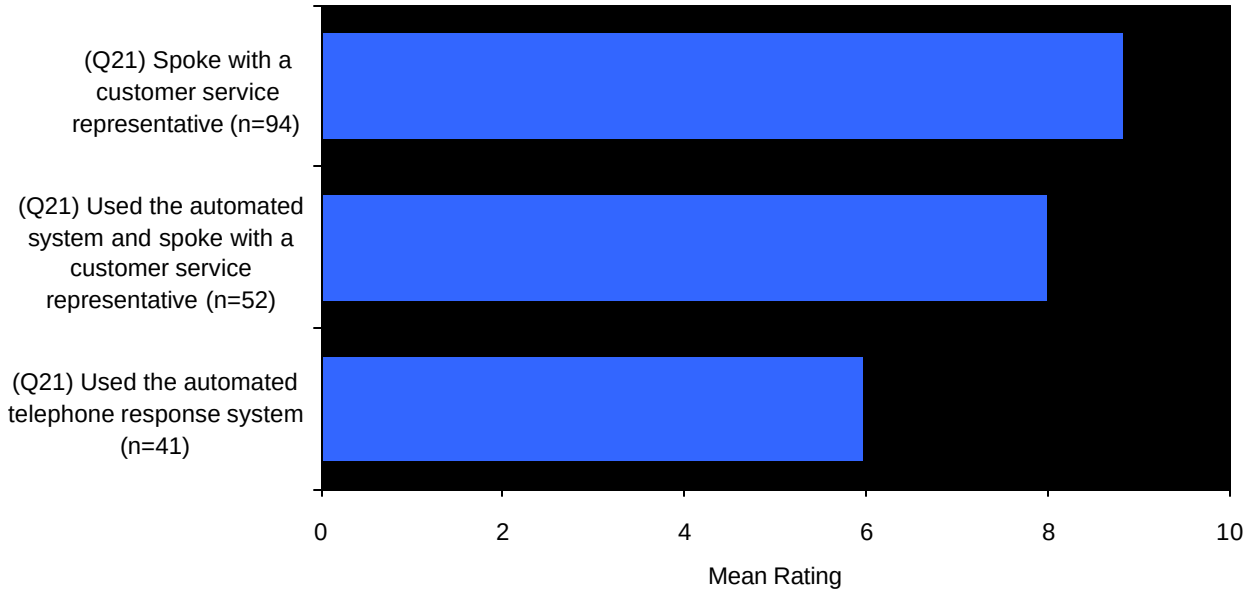
?? Report the number of employees, both full and part time, employed at their location is over 100 (Q38).

Overall Findings: Q20 and Q21

?? **Of those respondents who tried to reach MidAmerican in the past 12 months, 50 percent said they spoke to a live customer service representative, 28 percent said they used an automated telephone response system and spoke to a live customer service representative, and 22 percent said they completed their call through an automated telephone response system.**

?? **Respondents who only spoke with a customer service representative give the utility an average rating of 8.84 for meeting their needs during the phone call.** Respondents who used the automated system and spoke with a customer service representative give the utility an average rating of 8.00 and respondents who only used the automated telephone response system give the utility an average rating of 5.98. (see Figure 23)

Figure 23: Mean Ratings for Meeting Customers' Needs during Phone Calls[1]



[1] Only those respondents who said they called the utility in the last 12 months were asked this question.

Significant Chi-Squares

?? **Meeting customers' needs during phone calls (Q21) is rated higher by respondents who:**

- ?? Report experiencing fewer power interruptions lasting LESS than one minute in the past 12 months (Q6);
- ?? Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8);
- ?? Said they completed their most recent call to the utility by speaking with a customer service representative only (Q20);
- ?? Said they are VERY FAMILIAR or SOMEWHAT FAMILIAR with the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23); and
- ?? Said they are VERY FAMILIAR with the utility reporting information about extended power outages to the news media to keep customers informed (Q24).

?? **In addition, ratings for meeting customers' needs during phone calls (Q21) vary significantly by:**

- ?? The length of the last power outage lasting MORE than one minute in the past 12 months (Q10). However, no clear pattern of response can be determined from the data;

- The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data; and
- The length in hours of the LONGEST outage lasting more than one minute (Q12). However, no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

- **Meeting customers' needs during phone calls (Q21) significantly correlates with:**
  - Providing reliable electric service (Q2);
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Minimizing the number of power outages lasting MORE than one minute (Q7);
  - Restoring electric service at your business when outages occur (Q15);
  - Providing information about extended outages (Q16);
  - Being accessible during an outage (Q17); and
  - Trying hard to preserve the appearance of the trees they trim (Q29).

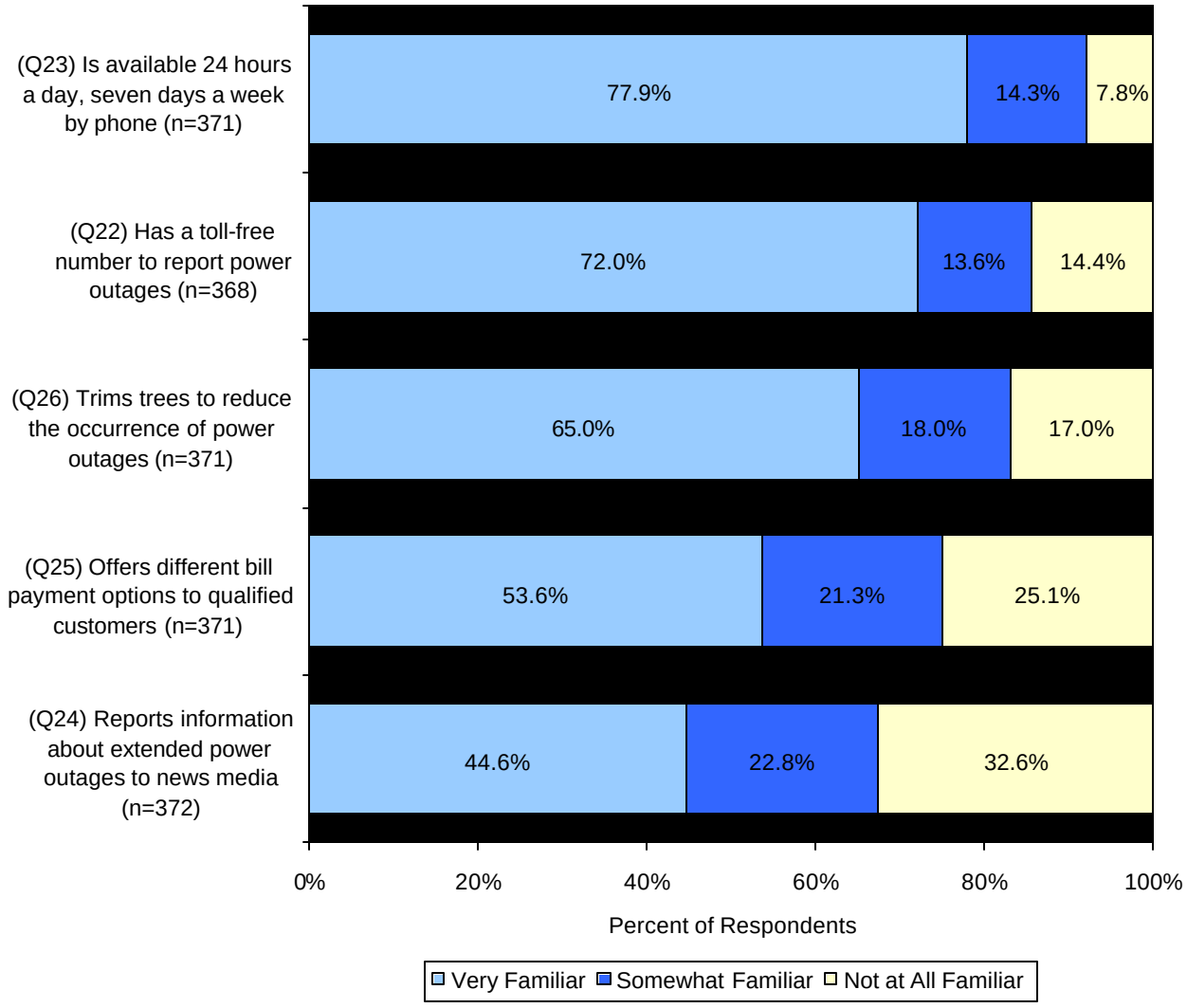
d. Understanding of Services

We asked survey respondents to rate their familiarity with various utility services. The findings are presented below.

Overall Findings: Q22, Q23, Q24, Q25, and Q26

?? **More than three-quarters of non-residential respondents (78 percent) said they are very familiar with their utility representatives being available 24 hours a day, seven days a week by phone.** See Figure 24 below for a complete breakdown of respondent familiarity with various utility services.

Figure 24: Familiarity with Utility Services



Significant Chi-Squares

- **Respondent familiarity with the utility being available 24 hours a day, seven days a week by phone in the event of a power outage (Q23) varies significantly by:**
  - The number of employees, both full and part time, employed at the respondent's location (Q38). However, no clear pattern of response can be determined from the data.
- **Respondents who said they are VERY FAMILIAR with the utility offering different bill payment options to qualified customers (Q25) are significantly more likely to:**
  - Be female (Q40).

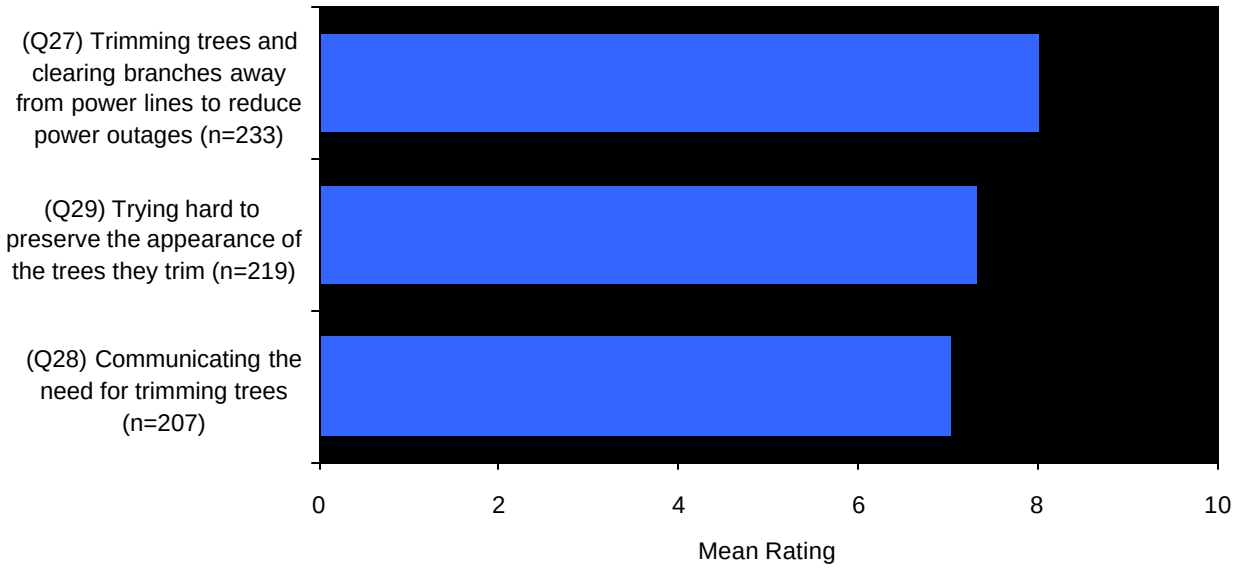
e. Tree Trimming Performance

We asked those non-residential respondents who are either very familiar or somewhat familiar with their utility trimming trees to reduce the occurrence of power outages three questions about MidAmerican's tree trimming performance. Findings are presented below.

Overall Findings: Q27, Q28, and Q29

- **On average, respondents give MidAmerican a rating of 8.03 for trimming trees and clearing branches away from power lines to reduce power outages.** As illustrated in Figure 25, respondents give the utility an average rating of 7.34 for trying hard to preserve the appearance of the trees they trim while they give the utility an average rating of 7.04 for communicating the need for trimming trees.

Figure 25: Mean Ratings for Tree Trimming Performance[1]



[1] Only respondents who said they are very or somewhat familiar with the utility trimming trees to reduce the occurrence of power outages were asked these questions.

Significant Chi-Squares

- **Trimming trees and clearing branches away from power lines to reduce power outages (Q27) is rated higher by respondents who:**
  - Report experiencing fewer power outages lasting MORE than one minute in the past 12 months (Q8).

- **In addition, ratings for trimming trees and clearing branches away from power lines to reduce power outages (Q27) vary significantly by:**
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data.
- **Ratings for communicating the need for trimming trees (Q28) vary significantly by:**
  - The length in hours of the SHORTEST outage lasting more than one minute (Q11). However, no clear pattern of response can be determined from the data; and
  - Respondent familiarity with the utility reporting information about extended power outages to the news media to keep customers informed (Q24). However, no clear pattern of response can be determined from the data.
- **Ratings for trying hard to preserve the appearance of the trees they trim (Q29) vary significantly by:**
  - The number of power interruptions lasting LESS than one minute in the past 12 months (Q6). However, no clear pattern of response can be determined from the data;
  - The number of power outages lasting MORE than one minute in the past 12 months (Q8). However, no clear pattern of response can be determined from the data; and
  - Whether or not they have experienced any loss or damage due to electrical outages or other electrical problems in the last 12 months (Q13). However, no clear pattern of response can be determined from the data.

Significant Correlation Coefficients

- **Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages (Q27) significantly correlates with:**
  - Keeping the electric system, including power lines and equipment, in good working order (Q4);
  - Restoring electric service at your business when outages occur (Q15); and
  - Communicating the need for trimming trees (Q28).
- **Communicating the need for trimming trees (Q28) significantly correlates with:**
  - Providing information about extended outages (Q16);
  - Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages (Q27); and
  - Trying hard to preserve the appearance of the trees they trim (Q29).

?? **Trying hard to preserve the appearance of the trees they trim (Q29) significantly correlates with:**

?? Meeting the customers' needs during the most recent phone call (Q21); and

?? Communicating the need for trimming trees (Q28).

f. Billing

We asked survey respondents if they receive a bill from MidAmerican at their place of business and if they personally see or handle this bill. Those respondents who receive and handle this utility bill were asked to rate the utility's performance on providing a bill that makes it easy to tell how much the current month's charges are. The findings are presented below.

Overall Findings: Q30 and Q31

- **Eighty-six percent of respondents said they receive a bill from MidAmerican at their business and 79 percent of these respondents said they personally see or handle this bill.**

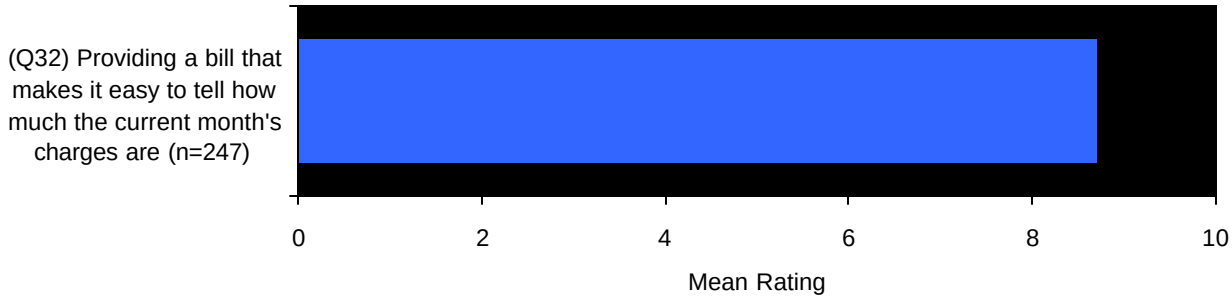
Significant Chi-Squares

- **Respondents who said they personally see or handle the utility bill (Q31) vary significantly by:**
  - The number of employees, both full and part time, employed at the respondent's location (Q38) – Respondents who work in a location with fewer employees are more likely to see or handle the utility bill than respondents who work in a location with more employees; and
  - Respondent gender (Q40) – Female respondents are more likely to personally see or handle the utility bill than male respondents.

Overall Findings: Q32

- **Respondents who receive and handle the bill from MidAmerican give the utility a mean rating of 8.72 for providing a bill that makes it easy to tell how much the current month's charges are.** (see Figure 26)

Figure 26: Mean Ratings for Billing[1]



[1] Only respondents who said they receive a bill from the utility at this location and personally see or handle this bill were asked this question.

Significant Chi-Squares

?? **Providing a bill that makes it easy to tell how much the current month's charges are (Q32) is rated higher by respondents who:**

?? Are female (Q40).

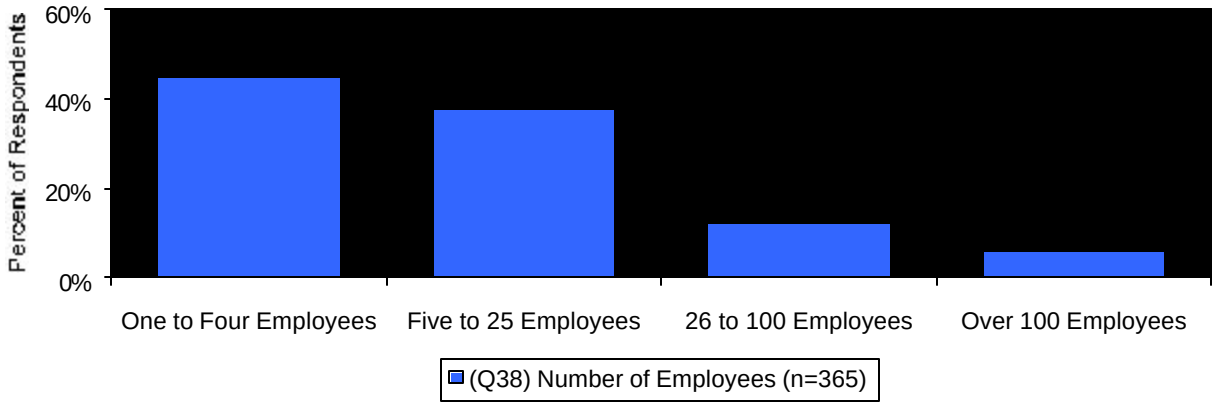
g. Firmographics

We asked survey respondents several firmographic questions in order to group their answers with those of others taking part in the survey. The findings are presented below.

Overall Findings: Q38

?? **Forty-five percent of non-residential respondents have from one to four employees at their business location.** As illustrated in Figure 27, 38 percent of respondents have from five to 25 employees at their location while 12 percent have from 26 to 100 employees and six percent have more than 100 employees at their location.

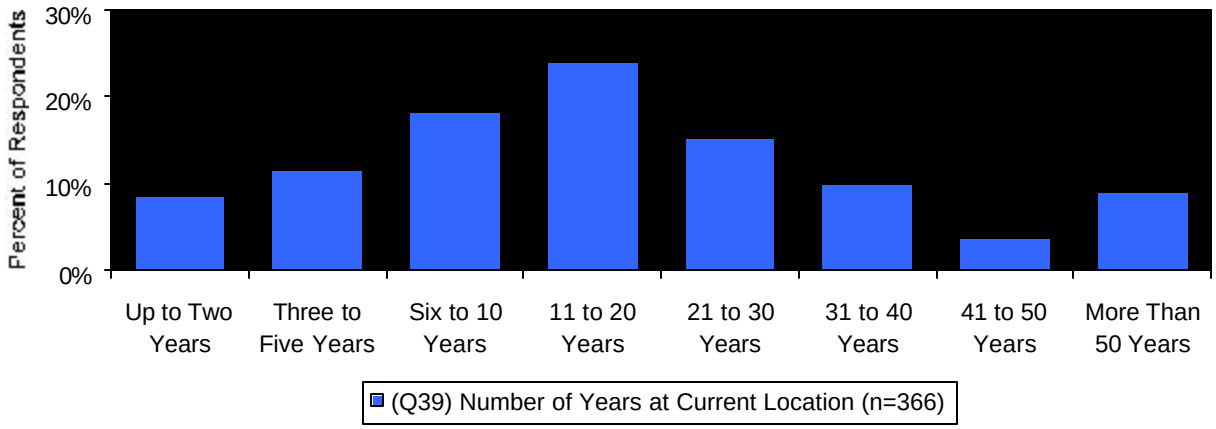
Figure 27: Number of Employees at Respondent's Location



Overall Findings: Q39

?? **More than three out of five respondents (62 percent) said they have conducted business at their current location for 20 years or less.** (see Figure 28)

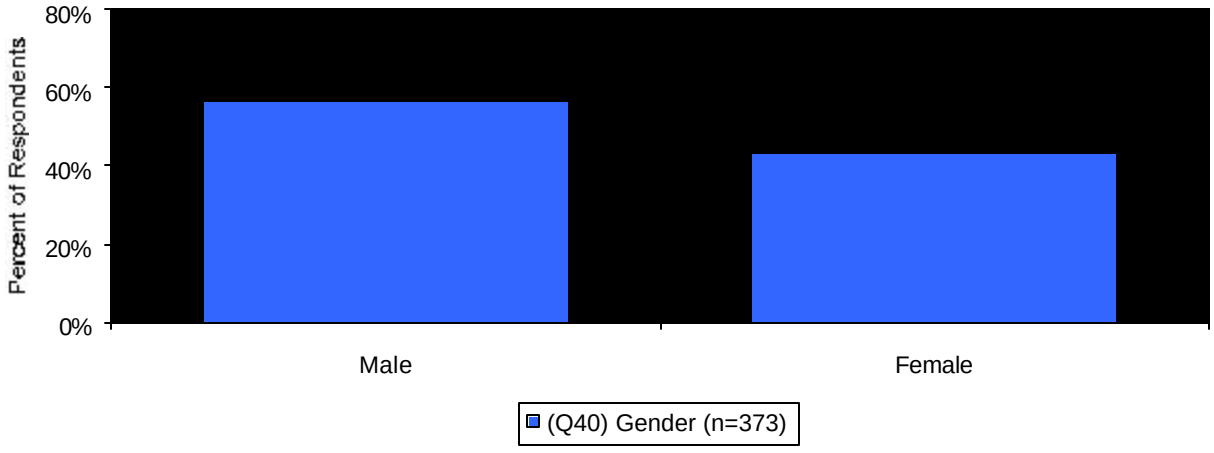
Figure 28: Years Respondent Has Conducted Business at Current Location



Overall Findings: Q40

?? **More than one-half of non-residential respondents (57 percent) are male.** (see Figure 29)

Figure 29: Respondent Gender



Appendix A

Survey Instrument

Illinois Customer Satisfaction Survey Instrument

QA. ENTER TYPE OF CUSTOMER FROM SAMPLE

1 Residential
2 Non-Residential

QB. ENTER SAMPLING FRAME

1 Customer database
2 Random digit dial {"RDD"}
3 Purchased list
4 Other

Residential Portion

Hello, my name is _____. We are conducting an opinion survey required by the Illinois Public Utilities Act about the service you receive from your electric company. May I speak with the head of household who is most familiar with the service from your electric company?

1 Yes {CONTINUE}
2 No {TERMINATE}
3 (Refused) {TERMINATE}

Residential Screening

Your opinions are very important to us. At no time will I try to sell you anything and you will not be contacted as a result of this call. This survey will take about ten minutes.

IF USING RDD SAMPLE, ASK QC SO CUSTOMER CAN BE ASSIGNED TO A SERVICE AREA

QC. What is your zip code?

[RECORD NUMBER]
1 (Don't know/Refused) {TERMINATE}

IF USING CUSTOMER LIST FOR SAMPLE, ASK QD TO VERIFY ADDRESS

QD. Just to confirm, have I reached you at {READ ADDRESS FROM SAMPLE}?

1 Yes {CONTINUE}
2 No {TERMINATE}
3 (Don't know) {TERMINATE}
4 (Refused) {TERMINATE}

QE. Are you the person who is most familiar with the service you receive from your electric company at this address?

1 Yes {SKIP TO QG}
2 No {CONTINUE}
3 (Don't know) {TERMINATE}
4 (Refused) {TERMINATE}

QF. May I speak to the person who is most familiar with your electric service now?

1 Yes {CONTINUE}
2 (Refused) {TERMINATE}
3 No - IF NO, ASK: I would like to make an appointment to call him/her at a specific time at his/her convenience. Could we please schedule a convenient time? {ARRANGE APPOINTMENT CALLBACK DATE AND TIME}

(IF NECESSARY, READ INTRODUCTION TO RESPONDENT)

Hello, we are conducting an opinion survey required by the Illinois Public Utilities Act about the service you receive from your electric company. Your opinions are very important to us. At no time will I try to sell you anything and you will not be contacted as a result of this survey. The survey will take about ten minutes.

QG. We would like to ask you some questions about the electric service you receive from your electric company. Is this a convenient time?

1 Yes {CONTINUE}
2 No {ARRANGE APPOINTMENT CALLBACK DATE AND TIME}
3 (Don't know) {TERMINATE}
4 (Refused) {TERMINATE}

QH. Do you, or does a member of your family living in your home, work for an advertising agency or market research firm, or for a gas, electric or phone company?

1 Yes {TERMINATE}
2 No {CONTINUE}
3 (Don't know) {TERMINATE}
4 (Refused) {TERMINATE}

END OF RESIDENTIAL SCREENING PORTION

Non-Residential Portion

Hello, my name is _____. We are conducting an opinion survey required by the Illinois Public Utilities Act about the service you receive from your electric company.

Non-residential Screening

QI. Just to verify, have I reached {MOVE IN COMPANY NAME FROM SAMPLE}?

1 No {TERMINATE}
2 Yes {CONTINUE}
3 (Don't know) {TERMINATE}
4 (Refused) {TERMINATE}

QJ. {IF A CONTACT PERSON'S NAME HAS BEEN PROVIDED, ASK} I understand that the name of the person who is most familiar with electric service in your organization is _____. Is this correct?

1 Yes {SKIP TO QM}
2 No {CONTINUE}
3 (Don't know) {TERMINATE}
4 (Refused) {TERMINATE}

QK. {IF A CONTACT PERSON'S NAME HAS NOT BEEN PROVIDED OR IF QJ=2, ASK} Can you please tell me the name of the person who is most familiar with the electric service for this business/organization located at {MOVE IN ADDRESS FROM SAMPLE}? {IF RESPONDENT ANSWERS "DON'T KNOW," THEN ASK TO SPEAK WITH SOMEONE WHO MIGHT KNOW AND USE THE SAME INTRODUCTION WITH THE NEW RESPONDENT}

NAME _____

TITLE _____

QL. May I speak to {RESTORE NAME FROM QJ OR QK} now?

1 Yes {CONTINUE}
2 (Refused) {TERMINATE}
3 No {IF RESPONDENT NOT AVAILABLE, ASK:} I would like to make an appointment to call {RESTORE NAME FROM QJ OR QK} at a specific time at his/her convenience. Could we please schedule a convenient time?

{IF NECESSARY, READ INTRODUCTION TO RESPONDENT}

Hello, I am _____. We are conducting an opinion survey required by the Illinois Public Utilities Act about the service you receive from your electric company. Your opinions are very important to us. At no time will I try to sell you anything and you will not be contacted as a result of this survey. The survey will take only ten minutes.

QM. We would like to ask you some questions about the electric service your {business/organization} receives from your electric distribution company. Is this a convenient time?

1 Yes {CONTINUE}
2 (Refused) {TERMINATE}
3 No {ARRANGE APPOINTMENT CALLBACK DATE AND TIME}

END OF NON-RESIDENTIAL SCREENING PORTION

Residential and Non-Residential Portion

{READ FOR NON-RESIDENTIAL ONLY UNTIL RESIDENTIAL CUSTOMERS HAVE CHOICE; THEN READ FOR ALL CUSTOMERS} Electric service consists of two main parts. One part produces electricity at power plants. The other part moves the electricity through power lines to your location. Under a competitive electric system, the electricity will come to you through the power lines already in place. The company that owns and maintains these power lines is called an electric distribution company. It's your opinions about the electric distribution company we'd like to focus on today.

QN What is the name of your electric (insert the word "distribution" for non-residential only) company? {ASK AS OPEN END}

1 AmerenCIPS/CIPS/Central Illinois Public Service {CONTINUE}
2 AmerenUE/Union Electric {CONTINUE}
3 CILCO/Central Illinois Light Company {CONTINUE}
4 ComEd/Commonwealth Edison {CONTINUE}
5 Illinois Power/Dynegy {CONTINUE}
6 MidAmerican Energy/Iowa-Illinois Gas & Electric {CONTINUE}
7 Mt. Carmel Public Utility Company {CONTINUE}
8 Other {TERMINATE}
9 Don't know {TERMINATE}
10 Refused {TERMINATE}

[Programming Note: Terminate interview if utility identified by respondent is different from utility who provided sample for that respondent.]

END OF RESIDENTIAL AND NON-RESIDENTIAL SCREENING

Overall Satisfaction

First, let's talk about {RESTORE QN RESPONSE}. I'd like you to rate {RESTORE QN RESPONSE}'s performance using a zero to ten scale, where a zero means a poor job and a ten means an excellent job. Of course, you can use any number between zero and ten. How would you rate the job that {RESTORE QN RESPONSE} does on....

{RANDOMIZE Q1-Q3}

Q1. Providing electric service overall

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q2. Providing reliable electric service

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q3. Keeping your electric rates reasonable

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Reliability Performance

Now, I'd like to talk to you about {RESTORE QN RESPONSE}'s performance on electric reliability. How would you rate the job that {RESTORE QN RESPONSE} does on...

Q4. Keeping the electric system, including power lines and equipment, in good working order

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q5. Minimizing the number of power interruptions lasting LESS than one minute

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q6. In the past twelve months, how many times has there been a power interruption lasting LESS than one minute at this residence/business? {PROBE FOR BEST ESTIMATE}

[RECORD NUMBER OF TIMES 1-996]
0 No times/Did not lose power
997 997 times or more
998 (Don't know)
999 (Refused)

Q7. How would you rate the job that {RESTORE QN RESPONSE} does on minimizing the number of power outages lasting MORE than one minute?

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q8. In the past twelve months, how many times has there been a power outage lasting MORE than one minute at this residence/business? {PROBE FOR BEST ESTIMATE}

[RECORD NUMBER OF TIMES 1-996]
0 No times/Did not lose power
997 997 times or more
998 (Don't know)
999 (Refused)

{IF Q8=0, GO TO Q13}

Q9. When was … {if Q8=1, ask} this outage? … {IF Q8=2-997, ASK} your most recent outage? {TRANSLATE RESPONSE INTO NUMBER OF MONTHS}

[RECORD NUMBER OF MONTHS FROM 1-12]
0 No months
13 Over a year ago
14 (Don't know)
15 (Refused)

Q10. How long did this outage last?

[RECORD NUMBER OF DAYS FROM 1-96]
0 No days
97 97 or more days
98 (Don't know)
99 (Refused)

[RECORD NUMBER OF HOURS FROM 1-23]
0 No hours

[RECORD NUMBER OF MINUTES FROM 1-59]
0 No minutes

{IF Q8=2-997, ASK Q11-12 IF Q8=1, GO TO Q13}

Q11. How long was the SHORTEST of these outages over one minute? {the shortest of the outages of MORE THAN one minute}

[RECORD NUMBER OF DAYS FROM 1-96]
0 No days
97 97 or more days
98 (Don't know)
99 (Refused)

[RECORD NUMBER OF HOURS FROM 1-23]
0 No hours

[RECORD NUMBER OF MINUTES FROM 1-59]
0 No minutes

Q12. And how long did the LONGEST of these outages last?

[RECORD NUMBER OF DAYS FROM 1-96]
0 No days
97 97 or more days
98 (Don't know)
99 (Refused)

[RECORD NUMBER OF HOURS FROM 1-23]
0 No hours

[RECORD NUMBER OF MINUTES FROM 1-59]
0 No minutes

Q13. In the last twelve months, have you/has your business experienced any loss or damage due to electrical outages or other electrical problems?

1 Yes
2 No
3 (Don't know)
4 (Refused)

(If Q13=1, ask Q14. If Q 13=2, 3 or 4, skip to Q15)

Q14. What sort of loss of/damage to electrical equipment or accessories did you suffer? {INTERVIEWER SHOULD NOT READ CHOICES AND SHOULD ACCEPT MULTIPLE RESPONSES.}

1 Loss of perishables
2 Loss of electrical equipment or accessories
3 Interruption of business
4 Injury to self or another person
5 Other
998 (Don't know)
999 (Refused)

Customer Service Performance

Once again I'd like you to rate {RESTORE QN RESPONSE}'s performance, using the same zero to ten scale, where a zero means a poor job and a ten means an excellent.

{RANDOMIZE Q15-Q17}

Q15. Restoring electric service at your residence/business when outages occur

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q16. Providing information about extended outages

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q17. Being accessible during an outage

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q18. On a related topic, in the past 12 months, have you tried to reach {RESTORE QN RESPONSE} by phone?

1 Yes
2 No
3 (Don't know)
4 (Refused)

{IF Q18=1, ASK Q19; OTHERWISE GO TO INTRODUCTION BEFORE Q22}

Q19. What was the reason for your most recent call? {NOT READ - INTERVIEWER TO SELECT MOST APPROPRIATE CATEGORY}

1 To report a power problem, outage, or downed wire
2 To stop, start or transfer service
3 To make a payment arrangement or other billing question
4 To get information about locations, programs or services
5 (Other)
6 (Refused)

Q20. Did you complete your call through an automated telephone response system or speak to a live customer service representative or both? {Thinking about your most recent call.}

1 ATRS only
2 CSR only
3 Both
4 (Don't know)
5 (Refused)

{IF Q20=1, 2 or 3 ASK Q21; OTHERWISE GO TO Q22}

Q21. On a scale of zero to ten, {SHORTEN DESCRIPTION OF SCALE IF APPROPRIATE} where a zero means a poor job and a ten means an excellent job, please rate how well {RESTORE QN RESPONSE} met your needs during this phone call.

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Understanding of Services

Next, I'm going to read you a list of services that {RESTORE QN RESPONSE} may or may not provide. As I read each one, please tell me if you are very familiar, somewhat familiar or not at all familiar with {RESTORE QN RESPONSE} providing these services.

{RANDOMIZE Q22-Q25}

Q22. Has a toll-free number to report power outages. {Are you aware they provide this?}

1 Very familiar
2 Somewhat familiar
3 Not at all familiar
4 (Refused)

Q23. Is available 24 hours a day, 7 days a week by phone in the event of a power outage. {Are you aware they provide this?}

1 Very familiar
2 Somewhat familiar
3 Not at all familiar
4 (Refused)

Q24. Reports information about extended power outages to the news media to keep customers informed. {Are you aware they provide this?}

1 Very familiar
2 Somewhat familiar
3 Not at all familiar
4 (Refused)

Q25. Offers different bill payment options to qualified customers, such as paying a fixed monthly amount. {Are you aware they provide this?}

1 Very familiar
2 Somewhat familiar
3 Not at all familiar
4 (Refused)

Q26. Trims trees to reduce the occurrence of power outages. {Are you aware they provide this?}

1 Very familiar
2 Somewhat familiar
3 Not at all familiar
4 (Refused)

Tree Trimming Performance

{IF Q26=3 or 4, SKIP TO Q30} Now, I'd like to ask you to rate the tree trimming done by {RESTORE QN RESPONSE}. Please use the same zero-to-ten scale, {SHORTEN DESCRIPTION OF SCALE IF APPROPRIATE} where a zero means a poor job overall and a ten means an excellent job overall. How would you rate the job that {RESTORE QN RESPONSE} does on…

{RANDOMIZE Q27-Q29}

Q27. Trimming trees and clearing branches away from power lines to reduce the occurrence of power outages?

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q28. Communicating the need for trimming trees?

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Q29. Trying hard to preserve the appearance of the trees they trim.

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Billing

Now I'd like to talk about your impressions of {RESTORE QN RESPONSE}'s billing.

Q30. (Do you/Does your business} receive a bill from {RESTORE QN RESPONSE} at this location?

1 Yes
2 No
3 (Don't know)
4 (Refused)

{IF Q30=1, ASK Q31; OTHERWISE GO TO INSTRUCTIONS BEFORE Q33}

Q31. Do you personally see or handle this bill?

1 Yes
2 No
3 (Don't know)
4 (Refused)

{IF Q31=1, ASK Q32; OTHERWISE GO TO INTRODUCTION BEFORE Q33}

Q32. Thinking about the bills that {you receive/your business receives} from {RESTORE QN RESPONSE}, using a zero-to-ten scale, how would you rate {RESTORE QN RESPONSE} on providing a bill that makes it easy to tell how much the current month's charges are?

[RECORD NUMBER 0-10]
11 (Don't know)
12 (Refused)

Demographics and Firmographics

Now, I'd like to ask you a few questions to help group your answers with those of others taking part in this survey.

{IF RESIDENTIAL PORTION, ASK Q33-Q37 and Q40. NON-RESIDENTIAL GO TO Q38.}

Q33. What year were you born?

[RECORD 1870 to current year minus 18]
1868 (Don't know)
1869 (Refused)

Q34. Do you own or rent your residence?

1 Own/Buying
2 Rent
3 (Don't know)
4 (Refused)

Q35. How many years have you lived at your current address?

[RECORD NUMBER OF YEARS FROM 1-99]
1 <1
2 (Don’t know)
3 (Refused)

Q36. Into which of the following broad categories does your {STATE MOST RECENT TAX YEAR} total pre-tax household income from all sources fall? Would you say {READ CODES 1-4}?

1 Up to $25,000 {$24,999}
2 $25,000 to $50,000 {$49,999}
3 $50,000 to $75,000 {$74,999}
4 $75,000 or more
5 (Don't know)
6 (Refused)

Q37. Including yourself, how many people live in your household? {SELECT MOST APPROPRIATE CODE 1-7}

1 1
2 2
3 3
4 4
5 5 or more
6 (Don't know)
7 (Refused)

Q38. Including yourself, how many employees, both full and part time, do you employ at this location? {READ CODES 1-4}

1 1 to 4 employees
2 5 to 25 employees
3 26 to 100 employees
4 Over 100 employees
5 (Don't know)
6 (Refused)

Q39. How many years have you conducted business at this location?

[RECORD NUMBER OF YEARS FROM 1-99]
1 <1
2 (Don’t know)
3 (Refused)

Q40. ENTER GENDER {BY OBSERVATION}

1 (Male)
2 (Female)
3 (Don't know)

Thank you for your time.

Appendix B

Explanation of Tables

Chi-Square Test

The chi-square test is used to measure the strength of association (or lack thereof) in two-way tables of frequencies. Stated somewhat differently, the chi-square test addresses the general issue of whether the distribution of one variable depends on the value of a second variable. It is particularly useful for exploring relationships among variables that take discrete values. While the chi-square test identifies whether or not a relationship exists it does not provide insight into the nature of the relationship. For example, in the table below, the chi-square indicates that the distribution of satisfaction scores differs by gender but it does not provide insight into whether males are more or less satisfied than females. The t-test of means and z-test of proportions / percentages (discussed on the pages which follow) provide additional insight into the relationships.

Chi-squares with a significance value of 0.05 or less are considered evidence against the hypothesis that changes in one variable are not associated with a change in the second variable. As shown in the example below, the significance of 0.0384 (which is less than the 0.05 threshold) indicates that reliable electric service ratings (Q2) vary by gender (Q40).

Example: Chi-Square Test

This example does not contain actual survey findings

Q2. (How would you rate the job that <utiln > does on....) Providing reliable electric service?

	Q40. Gender			
	Frequency (A)	(Male) (B)	(Female) (C)	Cross Tab Total (D)
0 Poor	4	3	1	4
	0.7%	1.4%	0.3%	0.7%
1	-	-	-	-
2	3	-	3	3
	0.5%		0.8%	0.5%
3	5	1	4	5
	0.8%	0.5%	1.1%	0.8%
4	6	4	2	6
	1.0%	1.8%	0.5%	1.0%
5	41	12	29	41
	6.9%	5.5%	7.7%	6.9%
6	19	5	14	19
	3.2%	2.3%	3.7%	3.2%
7	43	17	26	43
	7.2%	7.7%	6.9%	7.2%
8	116	57	58	115
	19.4%	25.9%	15.4%	19.3%
9	97	35	62	97
	16.2%	15.9%	16.5%	16.3%
10 Excellent	263	86	177	263
	44.1%	39.1%	47.1%	44.1%
TOTAL NON-RESPONSES	3	2	1	3
	0.5%	0.9%	0.3%	0.5%
TOTAL ANSWERING	597	220	376	596
	100.0%	100.0%	100.0%	100.0%
CHI-SQUARE		<-------19.153------>		
SIGNIFICANCE		.0384*		

Significance is less than 0.05. Reject hypothesis that males and females rate reliable electric service the same.

Comparison Groups: BC
"*" Denotes Chi-Square where at least one cell has an expected value of less than 1 or more than 20% of the cells have an expected value of less than 5.

Ranking Tables

The ranking tables (illustrated below) rank the mean, median, mode, and range for a particular question combination. In the example, the results of a rating question (Q2, reliable electric service) are ranked by a demographic question (Q40, gender). The Q2 mean, median, mode, and range are ranked from highest to lowest. As illustrated in the example, males provide an average (mean) reliable electric service rating of 8.59 and, as a result, are ranked first. Females, with an average (mean) reliable electric service rating of 8.45 are ranked second. Similar rankings are provided for the median, mode, and range.

Mean = the sum of the numeric value of each response divided by the number of responses.
Median = the numeric value of the response with 50 percent of responses above and 50 percent below it.
Mode = the response that occurs most frequently.
Range = the distance between the highest score and the lowest score.

Example: Ranking Table

This example does not contain actual survey findings

Q2. (How would you rate the job that <utiln > does on....) Providing reliable electric service? By Q40. Gender.

	Rank
	-
Means	
Female	8.59
Male	8.45
	-
Medians	
Male	9.00
Female	9.00
	-
Modes	
Male	10.00
Female	10.00
	-
Ranges	
Male	10.00
Female	10.00
	-
	-
	-

T-test of Means

The t-test is used to test the hypothesis that two means are the same—for example, males and females. The use of a t-test assumes that the question of interest is measured on a continuous scale, for example responses to a satisfaction scale ranging from zero meaning "poor" to 10 meaning "excellent." High values of a t-test at the 0.05 level of significance constitute evidence against the hypothesis that the two means are the same.

In the example table below, the upper case B (under column C) indicates that the t-test provides strong evidence against the hypothesis that the mean score for females as reported in column C (8.59) is the same as the mean score reported for males as reported in column B (8.45). In other words, the upper case B tells us that females provide higher reliable electric service ratings.

T-tests differ from the chi-square test discussed earlier. The chi-square test addresses the more general issue of whether the distribution of one variable depends on the value of a second variable, while the t-test focuses on the more specific issue of whether the mean or average value is different. The t-test provides additional insight into the observations. Chi-square tests are used to explore relationships among variables that take discrete values, while the t-test is used to explore relationships among variables measured on a continuous scale. While the chi-square test identifies that a relationship exists (e.g., the distribution of satisfaction scores is different depending on whether the respondent is male or female), the t-test facilitates an understanding of the nature of a relationship (e.g., mean satisfaction is higher for females than it is for males).

Example: T-Test of Means

This example does not contain actual survey findings

Q2. (How would you rate the job that <utiln > does on....) Providing reliable electric service?

	Q40. Gender			
Frequency	(Male)	(Female)	Cross Tab Total
	(A)	(B)	(C)	(D)
MEAN	8.54	8.45	8.59 B	8.54

Reject hypothesis that male and female mean ratings of reliable electric service are the same. Females rate providing reliable electric service significantly higher.

Comparison Groups: BCD
Independent T-Test for Means, Independent Z-Test for Percentages
Upper case letters indicate significance at the 95% level.

Z-test of Proportions/Percentages

This test is used to test the hypothesis that an observed proportion is the same for two different groups. For example, the z-test of proportions is used to test the hypothesis that the proportion of respondents providing a specific score on a satisfaction scale ranging from zero meaning "poor" to 10 meaning "excellent" is the same for two groups of people (say males and females). High values of the z-test of proportions at a 0.05 level of significance constitute evidence against the hypothesis that the proportions are the same.

In the example table below, the upper case C (under column B) indicates that the z-test provides strong evidence against the hypothesis that the percentage of males providing a score of "8" as reported in column B (25.9%) is the same as the percentage of females providing a score of "8" as reported in column C (15.4%). In other words, the upper case C tells us that a higher proportion of males rated reliable electric service an "8."

The z-test of proportions shares characteristics of both the chi-square test and the t-test of means. Like the chi-square test, the z-test of proportions is used to statistically examine relationships for variables that may not be measured on a continuous scale. Like the t-test of means, the z-test of proportions facilitates an understanding of the nature or direction of any differences.

Example: Z-Test of Proportions/Percentages

This example does not contain actual survey findings

Q2. (How would you rate the job that <utiln > does on....) Providing reliable electric service?

	Q40. Gender			
	Frequency	(Male)	(Female)	Cross Tab Total
	(A)	(B)	(C)	(D)
0 Poor	4	3	1	4
	0.7%	1.4%	0.3%	0.7%
1	-	-	-	-
2	3	-	3	3
	0.5%		0.8%	0.5%
3	5	1	4	5
	0.8%	0.5%	1.1%	0.8%
4	6	4	2	6
	1.0%	1.8%	0.5%	1.0%
5	41	12	29	41
	6.9%	5.5%	7.7%	6.9%
6	19	5	14	19
	3.2%	2.3%	3.7%	3.2%
7	43	17	26	43
	7.2%	7.7%	6.9%	7.2%
8	116	57	58	115
	19.4%	25.9%	15.4%	19.3%
		C		
9	97	35	62	97
	16.2%	15.9%	16.5%	16.3%
10 Excellent	263	86	177	263
	44.1%	39.1%	47.1%	44.1%
TOTAL NON-RESPONSES	3	2	1	3
	0.5%	0.9%	0.3%	0.5%
TOTAL ANSWERING	597	220	376	596
	100.0%	100.0%	100.0%	100.0%

Reject hypothesis that the percentage of males and females providing a rating of "8"for reliable electric service are the same. A significantly higher percentage of males provided an "8" for reliable electric service.

Comparison Groups: BCD
Independent T-Test for Means, Independent Z-Test for Percentages
Upper case letters indicate significance at the 95% level.

Pearson Product Moment Correlation Coefficient

This test is used to determine the degree of linear relationship between two variables that are measured on continuous scales (e.g., responses to two questions both measured on a satisfaction scale ranging from zero meaning "poor" to 10 meaning "excellent"). The value of the correlation coefficient statistic ranges from +1 to –1. A correlation of +1 means that there is a perfect positive linear relationship between two variables while a –1 indicates that there is a perfect negative linear relationship. A correlation coefficient of zero means there is no linear relationship between two variables. Correlation coefficients with an absolute value of 0.5 or higher are considered significant.

Appendix C

Correlation Tables

Table 6: Correlation Coefficients for All Residential Rating Questions [1]

	Q1	Q2	Q3	Q4	Q5	Q7	Q15	Q16	Q17	Q21	Q27	Q28	Q29	Q32
Q1	---	0.806	0.473	0.598	0.503	0.469	0.523	0.449	0.420	0.435	0.425	0.418	0.351	0.412
Q2		---	0.434	0.609	0.510	0.489	0.555	0.501	0.420	0.480	0.394	0.409	0.310	0.411
Q3			---	0.364	0.321	0.370	0.402	0.372	0.425	0.319	0.319	0.307	0.271	0.348
Q4				---	0.595	0.519	0.612	0.536	0.549	0.474	0.441	0.415	0.331	0.356
Q5					---	0.568	0.469	0.476	0.443	0.490	0.323	0.390	0.276	0.305
Q7						---	0.613	0.483	0.465	0.356	0.389	0.353	0.337	0.328
Q15							---	0.632	0.597	0.497	0.424	0.450	0.372	0.374
Q16								---	0.658	0.709	0.412	0.505	0.406	0.223
Q17									---	0.660	0.408	0.484	0.399	0.284
Q21										---	0.441	0.379	0.459	0.240
Q27											---	0.760	0.666	0.338
Q28												---	0.609	0.327
Q29													---	0.360
Q32														---

[1] Correlation coefficients with an absolute value of 0.50 or higher are shaded in this table and addressed in the Residential Executive Summary.

Table 7: Correlation Coefficients for All Non-Residential Rating Questions[1]

	Q1	Q2	Q3	Q4	Q5	Q7	Q15	Q16	Q17	Q21	Q27	Q28	Q29	Q32
Q1	---	0.833	0.515	0.698	0.521	0.595	0.625	0.474	0.477	0.479	0.464	0.311	0.268	0.261
Q2		---	0.454	0.746	0.606	0.615	0.683	0.493	0.519	0.523	0.458	0.298	0.243	0.254
Q3			---	0.427	0.349	0.426	0.465	0.411	0.472	0.286	0.392	0.383	0.313	0.353
Q4				---	0.590	0.647	0.758	0.531	0.575	0.628	0.524	0.360	0.412	0.305
Q5					---	0.719	0.652	0.501	0.497	0.426	0.418	0.266	0.345	0.241
Q7						---	0.747	0.552	0.577	0.548	0.439	0.276	0.303	0.183
Q15							---	0.616	0.673	0.602	0.501	0.469	0.469	0.324
Q16								---	0.721	0.537	0.449	0.532	0.471	0.262
Q17									---	0.621	0.425	0.369	0.449	0.235
Q21										---	0.361	0.387	0.526	0.036
Q27											---	0.633	0.463	0.383
Q28												---	0.589	0.323
Q29													---	0.328
Q32														---

[1] Correlation coefficients with an absolute value of 0.50 or higher are shaded in this table and addressed in the Non-Residential Executive Summary.

Appendix D

Residential Tables

Table 8: Residential Significant Chi-Squares[1]

	q6	q8	q9	q10	q11	q12	q13	q14	q18	q19	q20	q22	q23	q24	q25	q26	q30	q31	q33	q34	q35	q36	q37	q40
q1	X	X		X			X		X															
q2	X	X					X								X									X
q3		X		X	X		X				X		X						X			X		
q4	X	X		X	X	X	X		X			X			X		X							X
q5	X	X					X		X				X											
q6																			X	X		X		
q7	X	X		X		X	X		X								X							
q8																							X	
q9																								
q10																			X					
q11																								
q12																			X	X				
q13																								
q14																								
q15	X	X		X	X	X	X		X				X											
q16	X	X		X	X	X	X				X			X										X
q17	X	X		X			X		X		X													
q18																			X				X	
q19																				X	X	X		
q20																				X				
q21	X			X	X		X				X		X	X										
q22																								
q23																				X				
q24																								
q25																			X					
q26																			X	X				
q27	X						X							X		X						X		X
q28	X			X		X	X									X								X
q29														X										X
q30																				X				
q31																								X
q32				X	X														X		X			X

[1] Shaded areas of the table represent cross-tabulations that were not performed pursuant to Illinois Administrative Code 411, "Electric Reliability." Boxes containing an "X" indicate a significant chi-square value for the cross-tabulation between the question in the row header and the question in the column header. Areas with significant findings are discussed in the Residential Executive Summary.

Required cross tabulations, statistical ranking tables, and t-test/z-test tables for all residential survey questions are available in electronic format. The file name is Appendix D_MidAm Res Tables 2000.doc.

Appendix E

Non-Residential Tables

Table 9: Non-Residential Significant Chi-Squares[1]

	q6	q8	q9	q10	q11	q12	q13	q14	q18	q19	q20	q22	q23	q24	q25	q26	q30	q31	q38	q39	q40
q1	X	X		X	X	X								X		X					
q2	X	X		X	X	X							X			X					X
q3		X					X			X						X					
q4	X	X		X	X	X							X	X		X					X
q5	X	X		X	X	X	X							X		X				X	
q6																					
q7	X	X	X	X	X	X	X				X			X							X
q8																					
q9																					
q10																					
q11																					
q12																					
q13																					
q14																					
q15	X	X		X	X	X	X							X		X					X
q16	X	X		X	X		X				X			X			X				
q17	X	X			X							X	X	X	X	X					X
q18																			X		
q19																					
q20																					
q21	X	X		X	X	X					X		X	X							
q22																					
q23																			X		
q24																					
q25																					X
q26																					
q27		X			X																
q28					X									X							
q29	X	X					X														
q30																					
q31																			X		X
q32																					X

[1] Shaded areas of the table represent cross-tabulations that were not performed pursuant to Illinois Administrative Code 411, "Electric Reliability." Boxes containing an "X" indicate a significant chi-square value for the cross-tabulation between the question in the row header and the question in the column header. Areas with significant findings are discussed in the Non-Residential Executive Summary.

Required cross tabulations, statistical ranking tables, and t-test/z-test tables for all non-residential survey questions are available in electronic format. The file name is Appendix E_MidAm Non-Res Tables 2000.doc.